

Sequence Listing

<110> Lightfoot, David  
<120> Meksem, Khalid  
ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI  
UNDERLYING RESISTANCE TO SOYBEAN CYST NEMATODE AND SOYBEAN SUDDEN DEATH  
SYNDROME AND METHODS EMPLOYING SAME  
<130> 1268/4/2  
<150> 60/178,811  
<151> 2000-01-28  
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<170> PatentIn version 3.0  
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aactcaggtt tcaatctaaa agcaacgctg ttcaccttga gctgaaacac ctggaggaga  
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aagcaaagca aaccaaacgc gagagagaaaa taaagaacgg aaacagagag agagagagga  
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aggacacctgt tcaaagcaac ggggacaact ttagagccct ggcgcgcgtg ggggtcaata  
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agcgtaacct ggctgaggag agcctcggcg tcgtccttgc tgaaggcagaa gaggaagagc  
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ttgacttgag agaactcagg tatcaatcta aaagcaacgc tggcacctt gagctgaaac  
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acctggagga gaaagcaaag caaaccaaac gcgagagaga aataaagaac ggaaacagag  
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agagaggaag gaccttggc aaagcaacgg ggacaacttt agagccctgg cgcgcgtgg  
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ggtaataaag cgtaacctgg ctgaggagag cctcgccgc gtccttgctg aagcagaaga  
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atcacccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa
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attgggggtt caatcccttc aactttggga cttcttcccc accttagagg ggttcagttt
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ttcaacaata ggcttacagg ttccataacct ctttctttag gtttctgcct ttgcttcaag
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tctcttgacc tcagcaacaa cttgctcaca ggagcaatcc cttatagtct tgctaattcc
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720

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780

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840

caattttagtgc gacatattcc ttcaagcatt gcaaacattt cctcgcttag gcagcttgc  
900

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aatctctca atgttcctca caatagcctc tcaggcttg tccccctct gcttgccaag  
1020

aaatttaact caagctcatt tgtggaaat attcaactat gtgggtacag ccattcaacc  
1080

ccatgtctt cccaagctcc atcacaagga gtcattgcc cacccctga agtgtcaaaa  
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1200

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1260

acatcttaggc cggttacggc caagccaccc gaggtagag cggccactat gaggacaga  
1320

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1380

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caagttgcag taaagagatt gagggaaaag atcactaaag gtcatacgatc atttgaatca  
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 1860

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 1920

aaaatagccc aagccttggc ccgggcttgc ttgccttcattt tcccaggaga acatcataca  
 1980

tgggacctcn catccagcaa tgtgtggctt gatgaaaaac aaatgctaaa attcagattt  
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 2700

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gttattgccca ggtgtatata tcaacatgtt ttaaagattt tcaaacaatc aggttttaga  
2880

tgtgggttg catgcatgag attggactag tgcgcttgat gtagtataaa atataaaatg  
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tccaatcaag caccctctac atgtccaaat aatgggcctt atgaaactta attttttaat  
3000

tacaaactac agtaatctt ttgaataaag atttacaaat tacaacngac atgtgaagcn  
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<213> soybean  
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Pro Trp Lys Gly Leu Arg Gly Arg Ile Thr Asp Lys Ile Gly Gln Leu  
35 40 45

Gln Gly Leu Arg Lys Leu Ser Leu His Asp Asn Gln Ile Gly Gly Ser  
50 55 60

Ile Pro Ser Thr Leu Gly Leu Leu Pro Asn Leu Arg Gly Val Gln Leu  
65 70 75 80

Phe Asn Asn Arg Leu Thr Gly Ser Ile Pro Leu Ser Leu Gly Phe Cys  
85 90 95

Pro Leu Leu Gln Ser Leu Asp Leu Ser Asn Asn Leu Leu Thr Gly Ala  
100 105 110

Ile Pro Tyr Ser Leu Ala Asn Ser Thr Lys Leu Tyr Trp Leu Asn Leu  
115 120 125

Ser Phe Asn Ser Phe Ser Gly Pro Leu Pro Ala Ser Leu Thr His Ser  
130 135 140

Phe Ser Leu Thr Phe Leu Ser Leu Gln Asn Asn Asn Leu Ser Gly Ser  
145 150 155 160

Leu Pro Asn Ser Trp Gly Gly Asn Ser Lys Asn Gly Phe Phe Arg Leu  
 165 170 175  
 Gln Asn Leu Ile Leu Asp His Asn Phe Phe Thr Gly Asp Val Pro Ala  
 180 185 190  
 Ser Leu Gly Ser Leu Arg Glu Leu Asn Glu Ile Ser Leu Ser His Asn  
 195 200 205  
 Lys Phe Ser Gly Ala Ile Pro Asn Glu Ile Gly Thr Leu Ser Arg Leu  
 210 215 220  
 Lys Thr Leu Asp Ile Ser Asn Asn Ala Leu Asn Gly Asn Leu Pro Ala  
 225 230 235 240  
 Thr Leu Ser Asn Leu Ser Ser Leu Thr Leu Leu Asn Ala Glu Asn Asn  
 245 250 255  
 Leu Leu Asp Asn Gln Ile Pro Gln Ser Leu Gly Arg Leu Arg Asn Leu  
 260 265 270  
 Ser Val Leu Ile Leu Ser Arg Asn Gln Phe Ser Gly His Ile Pro Ser  
 275 280 285  
 Ser Ile Ala Asn Ile Ser Ser Leu Arg Gln Leu Asp Leu Ser Leu Asn  
 290 295 300  
 Asn Phe Ser Gly Glu Ile Pro Val Ser Phe Asp Ser Gln Arg Ser Leu  
 305 310 315 320  
 Asn Leu Ser Asn Val Ser Tyr Asn Ser Leu Ser Gly Ser Val Pro Pro  
 325 330 335  
 Leu Leu Ala Lys Lys Phe Asn Ser Ser Ser Phe Val Gly Asn Ile Gln  
 340 345 350  
 Leu Cys Gly Tyr Ser Pro Ser Thr Pro Cys Leu Ser Gln Ala Pro Ser  
 355 360 365  
 Gln Gly Val Ile Ala Pro Pro Pro Glu Val Ser Lys His His His His  
 370 375 380  
 Arg Lys Leu Ser Thr Lys Asp Ile Ile Leu Ile Val Ala Gly Val Leu  
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 405 410 415  
 Arg Lys Arg Ser Thr Ser Lys Ala Gly Asn Gly Gln Ala Thr Glu Gly  
 420 425 430  
 Arg Ala Ala Thr Met Arg Thr Glu Lys Gly Val Pro Pro Val Ala Gly  
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 Gly Asp Val Glu Ala Gly Gly Glu Ala Gly Gly Lys Leu Val His Phe  
 450 455 460

Asp Gly Pro Met Ala Phe Thr Ala Asp Asp Leu Leu Cys Ala Thr Ala  
 465 470 475 480  
 Glu Ile Met Gly Lys Ser Thr Tyr Gly Thr Val Tyr Lys Ala Ile Leu  
 485 490 495  
 Glu Asp Gly Ser Gln Val Ala Val Lys Arg Leu Arg Glu Lys Ile Thr  
 500 505 510  
 Lys Gly His Arg Glu Phe Glu Ser Glu Val Ser Val Leu Gly Lys Ile  
 515 520 525  
 Arg His Pro Asn Gly Leu Ala Leu Arg Ala Tyr Tyr Leu Gly Pro Lys  
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 Gly Glu Lys Leu Leu Val Phe Asp Tyr Met Ser Lys Gly Gly Leu Leu  
 545 550 555 560  
 Leu Phe Tyr Met Glu Gly Ser Cys Ala Gly Ser Phe Ile Lys Val Leu  
 565 570 575  
 Cys Val Leu Val Phe Asn Tyr Asn Leu Glu Phe Tyr Leu Ser Asn Leu  
 580 585 590  
 Tyr Asn Ser Asn Arg Arg Thr Val Gln Thr Lys Thr Pro Lys Glu Gln  
 595 600 605  
 His Leu Xaa Phe Asn Ile Pro Tyr Gln Xaa Ser Glu Ile Phe Ser Trp  
 610 615 620  
 Ser Ser Xaa Cys Arg Gly Asn Xaa Thr Phe Ile Ile Gly His Lys Met  
 625 630 635 640  
 Lys Ile Xaa Gln Asp Leu Ala Val Ala Cys Ser Pro Ser Phe Pro Glu  
 645 650 655  
 Thr Ser Tyr Met Asp Leu Xaa Ser Ser Asn Val Cys Xaa Xaa Asn Xaa  
 660 665 670  
 Met Leu Lys Leu Gln Phe Trp Ser Phe Ser Val Asp Val Asn Cys Cys  
 675 680 685  
 Xaa Phe Gln Arg Asp Ser Tyr Ser Trp Ser Ile Gly Ile Pro Gly Thr  
 690 695 700  
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 Ser Trp Cys Tyr Leu Val Arg Thr Pro Asn Glu Glu Ile Thr Trp Gly  
 725 730 735  
 Val Tyr Glu Trp Thr Arg Phe Ala Ser Val Gly Cys Leu Ser Cys Gln  
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 Arg Gly Val Asp Lys Xaa Gly Phe Xaa Cys Arg Leu Asp Glu Arg Cys  
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Ile His Ser Trp Arg Arg Val Ala Lys His Val Glu Ala Arg Phe Ala  
 770 775 780

Leu Cys Xaa Ser Phe Ser Ile Ser Thr Thr Arg Ser Ser Ser Ser Ser  
 785 790 795 800

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 120

caagtttcag gacaagtaat gcagaattat ggaaaagcaa tctgactaag aaaaaagagc  
 180

ttcagagatt aacagaaaaat agtgaggccag aaaaaagatt gcgagacaga aattggtcgc  
 240

caacaaaaag ttgtctcttt tataattttt aattgaaatt ttcttaattt agctaacatg  
 300

acttcctacg gccacaatttgcgtttcaga cactaaaaaa acttgatgtt gcagaaaaa  
 360

tcacgtttta tttattatttgcgttttcaat tttAACAGTTttatgtttagg tttAATAACA  
 420

gttaggtgat gcaagaggct aaacattaat cagaaatttgcgttttcaat tttACTCT  
 480

tatccatata ctgatttgcgttttcaat aacagcgccat tttAACTTCAGCTCT  
 540

acaatagttt ttttttttcaat aacagcgccat tttAACTTCAGCTCT  
 600

tcctatcgat tcgaaccggat ctttgttgcgttttcaat tttAACTTCAGCTCT  
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720

naatct  
726

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120

gacaaaattg gccaacttca aggccctcagg aagcttagtc ttcatgataa ccaaatttgt  
180

ggttcaatcc cttaactttt gggacttctt cccaacctta gaggggttca gttattcaac  
240

aataggctta caggttccat acctctttct ttaggtttct gcccttgct tcagtctctt  
300

gacctcagca acaacttgct cacaggagca atcccttata gtcttgctaa ttccactaag  
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ctttattggc ttaacttgag tttcaactcc ttctctggc ctttaccagc tagcctaact  
420

cactcatttt ctctcaacttt tctttcttctt caaaaataaca atctttctgg ctcccttctt  
480

aactcttggg gtgggaattc caagaatggc ttcttttaggc ttcaaaattt gatcctagat  
540

cataactttt tcactggtgta cgttcctgct tctttggta gcttaagaga gctcaatgag  
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acccacaaaa atgggcaact tnaaagnctc angaagctta atcttnatga aaaccaaaaat  
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ggggggtcaa ancncntcaac ttttgactt ctttccaacc ttagaggggg tcaattattc  
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aacaataggn ttacagggtc catacctt tctttaaggt tctgccctt gnttcagnct  
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cttgacctca acaacaactt gctnacagga agcaatccct tatagtcttg ctaattccac  
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taagcttat tggcttaact ttgagnntca actnctttct ntgggnctt accaactagn  
 420

ctaactcact catttctct cactttttt tntntttaaa aaaacaaaca tttntngntt  
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atcctanaac ataacttt  
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 120

atcaccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa  
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attgggtggtt caatcccttc aactttggga cttcttccca accttagagg ggttcagtt  
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tctcttgacc tcagcaacaa cttgctcaca ggagcaatcc cttatagtct tgctaattcc  
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actaagctt attggcttaa cttgagttc aactccttct ctggccttta ccagctagcc  
420

taactcactc attttctctc acttttcttt ctcttcaaaa taacaatctt tctggctccc  
480

ttcctaactc ttggggnggg aatttcaaga atggcttctt taggcttcaa aatttgcattcc  
540

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600

tgagaattcc cttagtcatn ataagnnttag tggagcttcc caantgaaat anggaccctc  
660

tntaggctta aacactngnc attctaataa tgccttgaat gggAACCTCC ctgttccctc  
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agttaggtac atcg  
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120

accgacaaaa ttggccaact tcaaggcctc aggaagctt gtcttcatga taaccaaatt  
180

ggtgtcaat cccttcaact ttgggacttc ttccaacctt agaggggttc aagttattca  
240

acaataggct tacaggttcc atacctttt cttaggttt ctgccttgc cttcaagtct  
300

cttgacacta gcaacaactt gtcacagga gcaatccctt atagtttgc taattccact  
360

aagctttatt ggcttaactt gagttcaac tncttctctg gnccttacc agctagccct  
420

actcactcat ttctctcac ttttcttc cttcaaaaaa acaaacttc tgggtccctt  
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660

ctggcatttt taaaatgcct tgaangggac ttgnccgctn cccctntaat tatccncctt  
720

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781

<210> 20  
<211> 861  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
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caagtgtgct cagggacagg ttattgtgat ccagcttcct tgaaagggtt tgaggggtcg  
120

aatcaccgac aaaattggcc aacttcaagg ctcaggaag cttagtcttc atgataacca  
180

aattggtggt tcaatccctt caacttgggg acttcttccc aaccttagag gggttcagtt  
240

attcaacaat aggcttacag gttccataacc tctttctta ggtttctgcc ctttgcttca  
300

gtctcttgac ctcagcaaca acttgctcac aggagcaatc ctttatagtc ttgctaattc  
360

cactaagtt tattggctta acttgagttt caactccttc tctggtcctt taccagctag  
420

cctaactcac tcattttctc tcactttct ttctcttcaa aataacaatc tttctggctc  
480

ccttcctaac tcttgggttg ggaattccaa gaatggcttc tttaggcttc aaaatttgat  
540

cctagatcat aacttttca ctggtgacgt tcctgcttct ttgggttagct taagagagct  
600

caatgagatt tcccttagtc ataataaaagt ttaatggagc tataaccaa at gaaataggaa  
660

ccctttctan gcttaaacac ttgacatttn taataatgnc ttgaatggga acttgctgc  
720

taccctctnt aattatcctn cttacactgn tgaatgcaaa aaacaacctc ttgcaataaa  
780

tcccttaaan ttangnnaat gggaaanttn tttntgattt gagtnaaacc aattaatggc  
840

atattnntta acattnaaan t  
861

<210> 21

<211> 761

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 21

gaatgggagg agtggaaag acatggggtt gaaggcgtt acccacatag ttgaatattt  
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cccacaaaatg agcttgagtt aaatttctt gcaagcagag gggggacaga acctgagagg  
120

ctattttagg aaacattgaa gggattttaga ctgcgctgac tgtcaaagga gactggaatt  
180

tctccactga aattattcag tgacaaatca agctgcctaa gcgaggaaat gtttgcattt  
240

cttgaaggaa tatgtccact aaattggttt ctactaaaa tcagaacaga aagattacgc  
300

aatctaccta aactttgagg gatttgattt tcaaggaggt tgttctctgc attcagcagt  
360

gtaagtgagg ataaattttaga gaggtagca ggcaagttcc cattcaaggc attattagaa  
420

atgtcaagtg tcttaagcct anaaagggtt cttatccat ttggatagc tccctaaact  
480

tattatgact aaggaaatc tnattgagct ctnttaactc ccaaagaaca ggacgtncca  
540

gtaaaaaaatg atnatctagg atcaaatttgc aacctaaaaa gcattttgga tccccccaaa  
600

gttaggaagga gcanaagatg tnttnaaaa anaatatanaa aatatagtac tactgtaagc  
660

naaaaggta ctaatagcat aantatgata caaatttagga tttcttanaa ttttttnaa  
720

aatnnnangn aaccaaaaaa gngacnncn tttnaanacc c  
761

<210> 22

<211> 856

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 22

aatgggagga gtggaaaga cagtggctat ggagcttgg ccggagggtt ggttggaaatc  
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aagtgtgctc agggacaggt tattgtgatc cagttccctt ggaagggttt gaggggtcgaa  
120

atcacccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa  
180

attgggggtt caatcccttc aactttggga cttcttccca accttagagg ggttcagtta  
240

ttcaacaata ggcttacagg ttccataacct ctttctttag gtttctgcct ttgcttcaag  
300

tctcttgacc tcagcaacaa cttgctcaca ggagcaatcc cttatagtct tgctaattcc  
360

actaagctt attggcttaa cttgagtttc aactccttct ctggcctttt accagctagc  
420

ctaactcact cattttctct cactttctt tctcttcaaa anaacaatct ttctggctcc  
480

cttcctaact ctgggggtgg gaattccaag aatggcttct ttaggcttca aaaattgatc  
540

ctagaacata acttttttac tggtgacggtt cctgcttttt ttggtaggct taaaganaag  
600

ccaatgagaa ttcccttagt catnataaaag ttaaggggag cttnccaa atgaaaaaaag  
660

gaaccctttn taggcttaaa nanacttgac aattntaat aatgcccttg aatngggAAC  
720

ttgcctgcta cccccctttaa tttatcctac ttaccctgnt ngaaggcaaa naacaacccc  
780

tttgcaataa aaaccnnaaa gttaagggg aangnggnact ttntntctnn tttnnnnaa  
 840  
 accanttann ggcnct  
 856

<210> 23  
 <211> 826  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 23  
 gaatgggagg agtgggaaag acatgggtt gaaggcgtgt acccacatag ttgaatattt  
 60

cccacaaaatg agcttgagtt aaatttcttg gcaagcagag gggggacaga acctgagagg  
 120

ctattttagg aaacattgaa gggatttaga ctgcgctgac tgtcaaagga gacttggatt  
 180

tctccactga aatttattcag tgacaaaatca agctgcctaa gcgaggaaat gtttgcattg  
 240

cttgaaggaa tatgtccact aaattggttt ctactcaaaa tcagaacaga aagattacgc  
 300

aatctaccta aactttgagg gatttgattt tcaaggaggt tgttctctgc attcagcagt  
 360

gtaagtgagg ataaattaga gaggtagca ggcaagttcc cattcaaggc attattagaa  
 420

atgtcaagtg tcttaagcct agaaagggtt cctatttcat ttggatagc ttcactaac  
 480

ttattatgac taanggaaat ctcattgagc tctcttaagc tacccaaaga agcaggaacc  
 540

gtcaccagtg aaaaaagtta tgatcttaga tcaaattttt aacctaaaaa accattcttg  
 600

gaattccacc ccaagaatta ggaaggagc canaaagatt gtttttga aaaaaaaaaaaga  
 660

aaagtgagaa aaaatgagtg agttaggctt actggtaaaa ggaccaaaaa aagganttg  
 720

aaactnaaan ttaanccaat aaaacttaat ggnataaca aanacttttta nggaatttctc  
 780

ttttnaacaat ttnttnctt angncaaaaa anttaancaa aggnct  
 826

<210> 24  
 <211> 571  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 24  
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 gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt  
 120  
 ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcataa aaaacacctat  
 180  
 ttgtccactc ctcttgaca actgaggcaa cccactgagg caaatctagt ccattcataa  
 240  
 acaccccagg tgatttcctc gtttaggagtt ctaacaagat aacaccaaga ctgtagatat  
 300  
 cagtttttagt gtttgctttc ttgagctttg agagctcagg tgcccggtat cccaatgctt  
 360  
 cagctgttagc tatcacgttg gaattagcag cagttgacat caaccgagaa agacaaaaat  
 420  
 ctgcaatttt agcatttgna ttctcattaa acaacacaat gntggatgng anggtncat  
 480  
 ggatgaaggt cttctnggna agnaagnaaa acaaagcacc gggccaaggn ttgggctaatt  
 540  
 ttcaaccttg gggggcaaaac naanaaatgt t  
 571

<210> 25  
 <211> 727  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 25  
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 ctcgagggag gaaaaacaaa gaaattcatg ataaatagat ataacttatt aaatttaagg  
 120  
 ggtgtatttg cacaccctga attatagaga ttcttataatc tttgagaaaa taattaaatt  
 180

gggaaaaaaag agataatgac tgattgagat ttgcctcaga attgttcgtt ttaatattgg  
 240  
 tacgaatcta atggtttat cctgaaaagat gctcacaagt attgagggac taataaattg  
 300  
 tttataaaact actactaaat gagatgagac tttaaggtgt actgaagcaa tatcatttaa  
 360  
 aaaatgacta ctcgtatttg tggtgagaaa atttatttc aatgaaaaga aaatatatac  
 420  
 atataagata aagtaattaa cataaccgaa aggaaataaa atgcaacatt ataaaaacta  
 480  
 caactatata aatgatatat acaactccta gcacatgcat tggattgtga attaattaaa  
 540  
 atgttgtatg gatggtaaaa attcaaaact aaacccccc caatttaagt gacacagaat  
 600  
 ataattagcg gtggctttt tacagaaacg acgagaacaa aggtgtcaaa ggaaaggaga  
 660  
 tggatgcatg tggatgagc tcattcaatt ccaacctgtt gtggaccaaa gccgaagtcc  
 720  
 ttgacnn  
 727  
  
 <210> 26  
 <211> 560  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 26  
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 60  
  
 tcttagaggat ccccggtac cgagctcgaa ttcccaatgc cagagttcc ctatcgtgg  
 120  
  
 cccccacatat gaagaataaca cccacgttga aatacatgtt gttgtgttg gacgcgc  
 180  
  
 gcccagagtg ccggtccacg agtatcccc aacgtgcacgg cgcacgtcgct taaaacctag  
 240  
  
 tattcatctt cctgatggag gcagccacgt gtccgacaag gtcaatgttg cggtttcgt  
 300  
  
 gaaaaggat gataatgaaa ggcaccatat tgtctgggc gaggttgaaa atggcgctcg  
 360

gcatgctctt gtaaggtgcc acgttgatgt agggagaac cttgactggc ccacttgagt  
420

tgttggagta gtttcgaag gcttgcata tgtggtttgt gttgggtaa ttcacagaca  
480

agaattttct gngaccgcgtg tctatgtttt atgggaagga gaatgggtgc ct当地ccc  
540

cnagctngat naggnggact  
560

<210> 27  
<211> 630  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 27  
actgcatgca tgcaagcaaa tttaacttta cacaacacac caccagagtg taagctgttt  
60

cataaaaaat gattgtttcg ggcttcgga tcacaaggct tgtagtat tcggtaagaa  
120

agaaagaaat aggtgataaa taaagtggat agaaacataa aagaaaggaa taaagtaatg  
180

aaaataaggg agaagtagaa taatggaaat agataagaaa tagaatggat tcgatagtat  
240

atctagttta agagaaataa gaaaaataa gaacaagaaa aaaaattgca tttaattta  
300

ttatgttac tgtatcgatg attggcacga gattataagt ttttttttc gtgtttaccg  
360

ttgaaggatt atatatcata ccattgttt gtcaaccaac acggaacttt aagtctcttg  
420

atgttcaaaa gcacttaaaa ctaaggaatt ttacatcata ttagtcgtct gtagactgat  
480

acaggatttt aagcctatat atctagcatt gatccggttg gcaatcaata tcacattaat  
540

gatcggtaaaa ccattcatat aaccctttg attggtaag aaatggcttt atgaatccca  
600

ggattgagcc cagaancagg ngatactagn  
630

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<210> 28
<211> 756
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 28
atggcttaa ctgagttc aactccttct ctggtccttt accagcttagc ctaactcact
60

catttctct cactttctt tctcttcaaa ataacaatct ttntggctcc ctnctaact
120

gtgggggggg gaatancaag ggnggctta ggctgaaaaa tttgatccta gatcataact
180

tttcactgg tgacgttcct gcttcttgg gtagcttaag agagctcaat gagattccc
240

ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta
300

agacacttga catttctaat aatgccttga atggaaactt gcctgctacc ctctctaatt
360

tatcctcact tacactgctg aatgcagaga acaacccct tgacaatcaa atccctcaaa
420

gttttaggttag attgcgtact ctttcctgtt ccgattttga gttagaaacca atttagtgga
480

catattcctt caagcatngc nnacatttcc tcgcttaggc agcttgatttgc tcaactgaata
540

atttcaggtg gagaaattnc agtctncttt gacagttagc gcagtcataaa tcttcttcaa
600

tggtnctac aataggcctc tcagggtctg gcccccttt gnttggccaa ggaaanttaa
660

cttaagctta tttggggggg aaanattcaa ctatgggggg acncggccct ttaaaccctt
720

gggnntttcc caggttcctt ccaagggngc anttgt
756

<210> 29
<211> 566
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 29

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gacccttgtt ctatagaacc gaattcgagc tcggcacccg gggatcctct agagtcgacc  
60

tgcaggcatg caagcttatt attactacta ctacttatct tcactccacc acactgtgtc  
120

actaaaaccg gaaccatccc catacaaaat tctactgaag acaacatatac ccccaatatt  
180

cccaatgcat cagcgttctc catgaaagtt gtcatttctt ttccattcaa agatccatca  
240

ttgtgggcc ttcccaccat cacaagatca tagtttcctt ccaaactatg cactgcttcc  
300

aacacctcca ccccatcgcc caccgtaatc tcgtaccaac aaacgttacc aatgccatat  
360

ttcatgctct tgaactcgcc aattaacccc tcgtccaaca tggtatcttc ctcttcctct  
420

tcacgctctt ctcttgcaaa ataattttac aaccacacgg tttcttggtc acgataacaa  
480

acctaacaacaa gctaccctcg tatctgcacg ctccgcattc gaattcccaa tgccagagct  
540

tccctatcg gggncccacc tatgaa  
566

<210> 30

<211> 673

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 30

gggactggct gtgactgatc tctctggct aatctttcc agctgctgga gaacttgatg  
60

aacctctggc cggtgtatc gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaa aaacctcatt  
180

tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga  
240

caccccaggt gatttcctcg ttaggatgc taacaagata acaccaagac tgttagatatac  
300

agtttttagtgc ttgtcttc tgagctttgc agaagctcag gtgccccgtt tcccaaatgc  
360

ttccagctgt agcttatacac cggtggaaat taagcagcaa gttggacatt caaccggag  
 420  
 naaaaagaccc aaaaattttg caaattttta agcaatttng gnanttcttn aatcaaggcc  
 480  
 aaccaccaat tggnttggga atgggtggaaag ggtttccccca atggtaatttgaagggtttc  
 540  
 ttcccctnnggg gaaaaatggaa aggggcaana aaacaaaggc ccaacnngggg ccccaaaggt  
 600  
 nttttggggg ccttattttt tncnaatncc ctgggnngg ggnccaaat tcnaaantgg  
 660  
 aaattggntt tnn  
 673

<210> 31  
 <211> 736  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 31  
 gttgnntagn tgcaactatag aatncgaatt caatttaaac atttttaatt ttttgtctt  
 60  
 gtattctatt ttttcataaa ttctaattttt gctaataatt tcaattcata ttaagatcg  
 120  
 taaatagaaa atctagaaaa aaaaacaaaa aaagtattttt ttttcatttg attttat  
 180  
 caattgattt gtcactaaca aactgattcc tcttaaatct cacaaaagta catgtcgata  
 240  
 taaatatgag attataaattt catgatatct attttcgatt tttacatata atgtttttt  
 300  
 tatctttttt agttcctaattt aagcattttt aaatgtctta tgttcctact ttgcataatca  
 360  
 gggaccattt aatgggacga ggtcaactgctg agcatgaaca acgtgtcttt cgtctccgaa  
 420  
 acaacgtgcc atcttgcagg ctcaccaccc tggaaatccctt ggagtggtca ccactgattt  
 480  
 tccggggaaa gcccggcggt gaaagtttga ttacaccggc aatgtgagcc ggtcgctgt  
 540  
 gcaaccctgg tnccgggaca aangcacacc aagttgnaan tttgggtccg aggggngcca  
 600

naattgggt tgcaangata ctaagcnntt ggnacttnc ctggnnnaacc caccctaat  
660

nccatntttc aatgggnac cnaatttctt acaattggnt gcaananggg ntttngggn  
720

aacctttnna ccccca  
736

<210> 32  
<211> 566  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 32  
gaccnnagac gctactatag ggagacaagg tattcgaagg ggaactgaga acgatccaa  
60

gcactccaag aaacagagag tttcacattt tttgttgtgt acataatgaa gcaaacgtgc  
120

gtggcatcac tgccttatta gaagagtgc acccagtgc agagagcccc atatgcgtct  
180

acgcagtcca ccttatcgag ctgcgtggga aaagtgcacc catttcctt cccataaaac  
240

atagacacgg tcgcagaaaa ttcttgctg tgaattaccc caacaccaac cacatcatgc  
300

aagccttcga aaactactcc aacaactcaa gtggggcagt caaggttctt ccctacatca  
360

acgtggcacc ttacaagagc atgcacgacg ccattttcaa cctcgcccaa gacaatatgg  
420

tgccttcat tatcatccct tttcacgaaa acggcaacat tgaccttgc ggacacgtgg  
480

ctgcctccat caggaagatg aatacttagt ttcaagcgca tgcgcattgc cgttgggat  
540

actcgngggcc ggnactctng gtgggn  
566

<210> 33  
<211> 614  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 33

acaacaagca acgaacagct tttaacctta aactaggcaa atgccaatat taaacaacaa  
 60  
 ataattaaaa ttgttaaggct ggtcgagtat aaattaaaca aaaggccctc tattcaaacc  
 120  
 ttcatatatac atacctgntt ttaattaacg cggactactt tttcatataa aaaaaagatc  
 180  
 attagaggat taatttaaag cgnttagtt tttaattacc aaagagtata attattatta  
 240  
 ggcgcttgg cccacaatca atcaccta aagaaaaa aaaaagaaaa aaaaaggcaa  
 300  
 attggactaa tgcaaaaagtgcacaaatctt tgncttgaac tcttaatta gcaacaaatn  
 360  
 atactcttgcacaaatca caagaatacc ttacatgaaa agaatggnaa tntgacgggt  
 420  
 tacattaaat tatatgcagg tttctgcagg gaatcaattn tcaagaattt aaaaaaaaaa  
 480  
 gggaaattttc aatagctagc ttgactagca aaggaaaga ataaaggnaa aangcttctt  
 540  
 ggctnggcct tttgganng gnatccttt ngctaaaccg gaaanggnta tangaatgg  
 600  
 aaaggagana atcg  
 614

<210> 34  
 <211> 602  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 34  
 aggcttagctg gttaaggacc agagaaggat ttgaaactca agttaagccaaataaagctta  
 60  
 gtggaatttag caagactata agggattgct cctgtgagca agtttgtgct gaggtcaaga  
 120  
 gactgaagca aagggcagaa acctaaagaa agaggtatgg aacctgtaag cctattgttg  
 180  
 aataactgaa cccctctaag gttggaaaga agtcccaaag ttgaaggat tgaaccacca  
 240  
 atttggttat catgaagact aagcttcctg aggccttgaa gttggccat tttggcggtg  
 300

attcgacccc tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac  
 360  
 ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa  
 420  
 gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga  
 480  
 taggagggtg cttttccct ttcactggnc tacctttcg ggaataagcc acctaattgag  
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 aaagaagan ctgggatagc taactctaca tagnctcaag gcnaagagata attaggaaa  
 600  
 ng  
 602

<210> 35  
 <211> 644  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 35  
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 60  
 ccagagaagg atttgaaact caagttaagc caataaagct tagtggatt agcaagacta  
 120  
 taagggatttgc ctccctgttag caagttgttg ctgaggtcaa gagactgaag caaagggcag  
 180  
 aaacctaaag aaagaggtat ggaacctgta agcctattgt tgaataactg aaccctctaa  
 240  
 aggttggaa gaagtcccaa agttgaaggg attgaaccac caatttggtt atcatgaaga  
 300  
 ctaagcttcc tgaggccttgc aagttggccaa attttggcgg tgattcgacc cctcaaacc  
 360  
 ttccaaaggaa gctggatcac aataacctgt ccctgagcac acttgattcc aacccaaac  
 420  
 ccggaacaag ctccatagcc actggcattc cagctccgc aagaaccctt ctggatcagc  
 480  
 caactttgc ttgaaagctt atcacatgta cctctctaca gataggaggg tgcttcttcc  
 540  
 ctttcactgg nctacctctt cgaaaataag ccacctaattg agaaagaaaag anctggata  
 600

gctaactcta catagnctca aggcnagaga taattaggga aang  
 644

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<210> 36
<211> 748
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 36
atggcttaa cttgagttc aactccttct ctggtcctt accagctac ctaactcact
60
cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact
120
cttgggtgg gaattccaag aatggcttct ttaggcttca aaatttgatc ctagatcata
180
actttttcac tggtgacggtt cctgcttctt tgggttagctt aagagagctc aatgagattt
240
cccttagtca taataagttt aatggagctg taccaaataatga aataggaacc ctttcttaggc
300
ttaagacact tgacatttct aataatgcct tgaatggaa cttgcctgct accctctcta
360
atttatcctc acttacactg ctgaatgcag agaacaacct ctttgacaat caaatccctc
420
aaagttttagg tagattgcgt aatcttctg ttctgatttt gggtagaaac caattttagtg
480
gacatattcc ttcaaggcatt gcaaacattt cctcgcttag gcagcttgat ttgcactgaa
540
taatttcagt ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc
600
aatgttcct acaatagcct ctcanggtct gnccccctc tgcttgccaa gaaatttaac
660
tcaagctcat ttgtggaaa tattcaacta tgtggacag nccttcaacc ccatgttttn
720
ccaagcttca tacaaggagc atggccct
748
  
```

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<210> 37
<211> 563
<212> DNA
<213> soybean
<220>
  
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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 37
ctggctgtga ctgatctctc tggctctaattc tcttccagct gctggagaac ttgtatgaact
60

tctggtcgtg ctgatggaga aggatcaaca cagtgc当地 ctagctttagc
120

aactcgctgc caactgtgga tgc当地tctc atcaagtctg catcaaaaac ctc当地ttgtc
180

cactcctctt tgacaactga ggcaacccac tgaggcaaat ct当地ccatt catagacacc
240

ccaggtgatt tc当地cgtag gagtttaac aagataacac caagactgta gatatcagg
300

tttagtgttg ctttcttgag cttttagagc tc当地gggcc ggtatccaa tgctccagct
360

gtagctatca cggtgaaatt agcagcagtt gacatcaacc cgagaaagac caaaatctgc
420

aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat
480

gatgttctcc tggaaatgaa ggc当地aaacca gccc当地ggccca agcttggcta tttcatcctt
540

gtggccaaatc aatgaatggt cat
563

<210> 38
<211> 623
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 38
gattttgcac atctacttga gtaggctca catgattccg tgtattactt ttatTTTggt
60

atatatacca tgtggagttt agtatactt ttgtcctac aaccacattt tatgagactt
120

gcattttatg tgacatgaac ataaaaaaata atgaaaaaga aaatgtcaca tatatatgat
180

acaatctttt taaaagtcaa tttgaataat tttcatcag gagaaaaaaag aagagagaaa
240

atgaatataag tttcttctaa aaataaaaat caacttataa aaagaaaaaa ct当地aatgaa
300

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aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttaa gcacaaggtg  
360

aatccaaata aagacccaa aagatagtac agaacccaac aatggtaaaa tctagaaata  
420

tacatgtaaa gactgcattt atagaccatc atgactagca aatgctaaa ggcacataga  
480

tgaattaatc tatgcaacaa aatctgnccc aagtttttt tangcaagga aaatcatatc  
540

attttattaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt  
600

acatgaaatc tgtcaccaag tac  
623

<210> 39

<211> 785

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 39

caatttaggaa ataaatatat tgaaaagaat tgtagtcag ttcaatgaaa gtgaggcct  
60

caaacaactt gatcagcan ctgtatgata caaaatatat taataactac accagcagaa  
120

aatatatatgt caatctatat ttggAACCA aataatattt aatttgtatc tgatagactc  
180

aagaaattat aactaatttgg gaagaaatgg atacctagta ttataaaac accaaaacac  
240

agggcagatt atagtagcta aagaggaaga agctaactag tcaaagtgtc acactattca  
300

acactacaaa ggaccaatcc ccttttagag agcctgaccc ttctcacccca agagctaccc  
360

aagagaatac acaccctctc ctccatatcc cctcccatat aacacaatcc tcaccaacta  
420

agcacctacc tgacaattcc ctcctaacc aactctctgct catcagggtt gattctcttc  
480

tctttccaag actttggct tttgtttga ctaagccaaa tttctatctg ctggcctgg  
540

ccaacagtat ctttacaga caagttaca aaatattcgt atttggtaga atttattgat  
600

attcctatta tggccccac tgtgtcaaa catttagaaa ctaatattac aattaacagt  
660

tttggtgaa tgcagcaaaa ctaaatatat ttgatataga aatcaacaaa ctgaaaaatt  
720

atatngcaag gncaattgga aaagaaaatt gatacccctt ttgngnaat aaatatantg  
780

nntac  
785

<210> 40

<211> 640

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 40

tggaggcggt cttcaattc aatcacaaag tctaaatcaa agacgagggg gctgaaatca  
60

tgggggacat tgacaacgta aggtaaccac taattaatta accactaata ttatcccatt  
120

aatatcccat taagagataa tacatataga gccataaaat aagcatctta acaagacaaa  
180

taaatttatcc attattcagc ttatgcccatt ggtggatttta gaagtttagg aaaaaaaaaat  
240

tcatcatttt gcaattttgg gtcatttgc ttgaatttgg tacaagggtgt ggtatggact  
300

tttttctttt ctttctcta aattcttcct tctatgatat actttggtc aacttaaact  
360

caatttctta tagctcaata tttggattt agattggaaa tatctaaaag ncacttaaat  
420

tttatattta caaaaaaaaaaaa aaaagcatcg ntcttttct ttttataaca aagggggatc  
480

aaaatcactc ttttatgaa tccgcattat ccttnataat aattaacctc cactgggatt  
540

taaaggngaa ttaattaaat ccggaggcca tggaggata tggggaaacc taatctaaaa  
600

ntncatcctc aaccctaang ggaaaataaa ggaatngggg  
640

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<210> 41
<211> 808
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 41
cttttgacac tatgaatacg aattcaaata ttaaatattt ttatTTTTg tctttgtatt
60

ctatTTTTc ataaattcta atnTTgctaa taatttcaat tcataTTAAG atcggtAAAT
120

agaaaaatcta gaaaaaaaaaa caaaaaaaagt atTTTTTTT cattgatttt atTTTcaatt
180

gatttgcac taacaaactg attcctctta aatctcacaa aagtacatgt cgatataaaat
240

atgagattat aaattcatga tatctatTTT cgatTTTAC atataatgtt ttttttatct
300

tttttagttc ctaataagca tttttaatg tcttatgttc ctactttgca tatcaggAAC
360

ccattaatgg gacgagggttc actgcgagca tgaacaacgt gtcttcgtt ctcccgaaca
420

acgtgtccat cttgcaggct caccacctcg gaatccctgg agtgttcacc actgatTTTc
480

cggggaagcc gccgggtgaag tttgattaca ccggcaatgt gagccgttc ctgtggcaac
540

ctgttccccg gacaaaggca cacaagttga agtttgggtc cgagggtgca gattgtgttg
600

caggataacta gcattgtcac tcctgagaac caccctatcc atcttcatgg gtcgatttct
660

acattgttgc agagggtttc gggaaacttcg acccaaagaa agatccgcga aattcaacct
720

tggtggatcc ctttgaaaaa acacagtggc tggcctgtaa atggatggc aagtattcga
780

tttggggct gataaccnA gtaaatnt
808

<210> 42
<211> 605
<212> DNA
<213> soybean
<220>
<221> misc_feature

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<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 42  
 ctcccgggtc ccaagtaata ggccctcag agccaaaaca ttggggggc taattttcc  
 60  
 tagaacactg acttctgatt caaattctct atgaccttta gtgatcttt ccctcaatct  
 120  
 ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct  
 180  
 ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc  
 240  
 atcaaataatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac  
 300  
 tggagggact ccttttctg cctcatactg gccgctctac cctcggtggc ttggccgntc  
 360  
 ccggccttag atgntgatct ctttctgatc aggcaaaaaa gcaggacaca acaaagnata  
 420  
 atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagcttc  
 480  
 ctatgatggg gatggttnga cacttcanga gggggggcaa tgactccctg gganggagct  
 540  
 tggaaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaaangag  
 600  
 cnngn  
 605

<210> 43  
 <211> 275  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 43  
 ctgaacggaa gtgactgcgt ttgtgtcggt tgtaaggcagg gagtgaggc attataggtc  
 60  
 tcggtttgc tcttactcc tttggcacga tggtgagaat gcttattgtg gtgattcggt  
 120  
 gatttgatt cgagtatggc ggttgttagtg gtgttgtcga aggcaaggctt ttggcggt  
 180  
 tggtaacgcac ggcggccat gtagtagcgg gaagggtggct ggtcnccgggt gattaagacg  
 240

tcggcggttt gcccgccccca cactatgagg acttt  
 275

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<210> 44
<211> 632
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 44
tgtatataat taaaatgagt ttaatattta tgtattaata gtataaaatt tatcatacat
60

gatgaatggt gaaattttga attatgatta aataattata taaaaaaatt tacatgatga
120

atgaataact tttttttct caattaaat tatgatcctt tgtcgatatg ttttactgtg
180

tcgacctttt ttttcgggg agaggggacc agtaggagaa gtagtattta gtaaaagaag
240
ggagagagaa gttgacttat ccttaatta gtttagagaa aattagacga gaaggaaaaa
300

aaataggcga aagtcacttt ttctttctat ctctaccaag aatgttgatg aaaaagtggg
360

gagcagaatt ttaaattttt atttcataat ttatccttct ccacattttt ggtttctcc
420

attttttat aaaatgattt attttagggc ataggttaact tttcaattttt tttcattcta
480

ttcgatcaaa taaatagaaa aataattac ttttctttct tttaaccttt ttcataattc
540

tctcataacg accacttatt aattacctct ttnccccac ttttgctat ncaaatctat
600

ctttgaattt cttcctttc attttgtct cn
632
  
```

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<210> 45
<211> 650
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 45
ttcacagaca tagcaaaatt ctgaagtaag aagcaagttc acgtgtgatg gcgaaaccca
60
  
```

ttatagaata tgttagactg aaaggtaaca aattaaaata tgtttattg cagaaaccat  
 120  
 aaactaataa acctttggg tagatagaaa agtgataaat catacataat aataactgaa  
 180  
 atactcagct ttaatcaat ttaattcaat atatatctat tttgaattt ttcaaagaga  
 240  
 tgcttagcta gggagggaaac ctaatttagt ataaaaaaaaaa gaaacaaatt aaaaacataa  
 300  
 attgccattg aatgcctttt aaaatattcc gatccattga tgtctacata ataatatata  
 360  
 ttattgatat aataaccgat tgaataaaat ggatataacct attacgtaat agcagattt  
 420  
 tctacgcaa agagacagtc aaaggtgcta attagaaatt aatcgccccca taataaaatt  
 480  
 ctaaaccttt gaaaagataa atcaattctc aaaaagattt attttactta tctcagtacc  
 540  
 atgcaccatg gatcatctta ctggtctggt tangaattt caaagctacg ccacaaattt  
 600  
 aaattgggct aaaaatcaa catgcatggt gtcacaacta tattactagt  
 650

<210> 46  
 <211> 628  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 46  
 gaatgcacat tttataaacg tggtgatcct ctccccgnng ggggaccaat taataaggta  
 60

ccctgttgcc cctagggac attggatggc catcagatgg tgcataataca caccaaagtt  
 120  
 tatacagcat tatagtgact ttcaacctcc tcactccgag gtccccatat attctctcta  
 180  
 ttgaacttgt aaagactaat gaacttatga agactatcac tgaaacccac tatggaagcc  
 240  
 ccagtagtaa aatggncatg catgctcacc aaaagtttat acagcattat agcgacatac  
 300  
 gacctcactc ccaggnccac atgctctatn gaacttctaa agctatctcn gaaccctatt  
 360

atagcttcat gagggtaaca tgcattttag cgacttagaa aactacatat cattgagcgt  
 420  
 gatcnttaag aaggcctcat tttgacacaa aagaacatga tggatttgcc tttatattcg  
 480  
 gttactaacc ttgatagcta ttttggncag agagaaaaat attgacatgc ccngngaaatc  
 540  
 aaaaggtaga taatnattaa agagataaag aactatcccc ttgctagggg naaaaaaaaaa  
 600  
 ntatatccct atttaaataa aanccatc  
 628

<210> 47  
 <211> 736  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 47  
 tgggttatat aattaaaatg agtttaatat ttatgttatta atagtataaa atttatcata  
 60  
 catgatgaat ggtgaaattt tgaattatga ttaataatt atataaaaaa atttacatga  
 120  
 tgaatgaata actttttttt tctcaattaa aattatgatc ctttgcgtat atgttttact  
 180  
 gtgtcgacct tttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag  
 240  
 aaggagagaga gaagttgact ttcctttaa ttagttttaga gaaaattttaga cgagaaggaa  
 300  
 aaaaaatagg cgaaagtac ttttcttc tatctctacc aagaatgtt atgaaaaagt  
 360  
 ggggagcaga attttaaatt tttatattca tattttatcct tctccacatt tttgtttct  
 420  
 tccatttttt tataaaatga tttatatttag ggcatagttt acttttcaat ttttttcat  
 480  
 tctattcgat caaataaaata gaaaaataat ttactttct ttcttttaac cttttcatat  
 540  
 ttctctcata acgaacaact tattaattta cctctttcc cccacttttgc tctatccaaa  
 600  
 ttctatctt gaattttctt cctttcatt ttggttctca acccaaataa agaagaacga  
 660

gtttggataa atcataaaagg ttatatacc tataantgga agaacattta aatggtccaa  
720

ngggccttaa aattct  
736

<210> 48  
<211> 695  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 48  
atgccagagc tttccttatac gtggcccccac ctatgaagaa tacaccacg ttgaaataca  
60

tgttgtgtt gttggacgcg cccagccccga gagtgccgggt ccacgagttt ccccaacgtg  
120

catggcgcat gcgcgttggaaa cctagtatttc atcttccttga tggaggcagc cacgtgtccg  
180

acaaggtaa ttttgcgtt ttcgtgaaaa gggatgataa tgaaaggcac catattgtct  
240

tgggcgaggt tgaaaatggc gtcgtgcattt ctcttgtaag gtgccacgtt gatgttaggaa  
300

agaaccttga ctggccact ttagttgtt gaggatgtttt cgaaggcttg catgtatgtgg  
360

tttgttgtgg ggttaattcac agacaagaat ttctgcgac cgtgtctatg ttttatggaa  
420

aggagaatgg gtgcactttt cccacgagct cgataaagggt ggactgcgtt naccatatgg  
480

gctctnttgc actgggttgc actcttctaa taanggcagn gatgccncnc nccgtttgt  
540

tnattatgtt cncaacaaac aatngaaac tctctgnttn ttgggagngc tttggatcgn  
600

tctcanntnc ccttnnaata anctttntnn ggnacttnn agggcgangc ttnnnncnata  
660

tgnataaccaa gggngntacn annnnnngnt ntaan  
695

<210> 49  
<211> 625  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 49
tttcccacaa tcttaatct tgctaataat ttcaattcat attaagatcg gaaaatagaa
60
aatctataaa aaaaaacaaa aaaagtattt tttttcatt gatttattt tcaattgatt
120
tgtcactaac aaactgattc ctcttaatc tcacaaaagt acatgtcgat ataaatatga
180
gattataaat tcatgatatac tatttcgat tttcacataat aatgtttttt ttatctttt
240
tagttcctaa taagcatttt taaatggctt atgttcctac tttgcataatc agggaccat
300
taatgggacg aggttcactg cgagcatgaa caacgtggct ttcgttctcc cgaacaacgt
360
gtccatcttg caggctcacc acctcgaaat ccctggagtg ntcaccactg atttccggg
420
gaagccgccc gtgaagtng attacacccg gcaatgtgag ccgntcgctg gggcaacctg
480
ntcccgacaa aaaggcacac aagttgaagt ttgggtcgag ggngcagatt gggntgcan
540
gatactagca ttgcactcct gagaaccacc ctatccatct tcatgggac caattctaca
600
ttggtgcaga nggtccggg aacnc
625

<210> 50
<211> 621
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 50
actgggtgtac gatttgtgt tactagctat cccatgtaat aaatataaa atcttgaatc
60
acaaggaatg atgcaatata tggttcctct aatagtaagt tatccacca aatctgaata
120
taatataagaa gttgtattcg tctgaatgtt gtgtctaaaa gggttgattt atgaatgtg
180
gctacatgtg agagtttgat aacaacagct agctagccat tagccaagcc actaactaga
240
.

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cattagttt ggttgtgt cagacaaacc gttagacctg agaacgaaag cgtatcaa  
 300  
 aaaagatgat atgttagactt ttaatataaa aagagatgga gaaaccaaat tgagattga  
 360  
 taggtgaact ataaatcatg acagtgcatt agacaagttg gtagagttt gttactaactc  
 420  
 atcagattct taagaaaggc aaaaatagaa actacaccac atgtcgctag cgataacgtg  
 480  
 caatttataa ataaataatg gcttcatttt catggtagt tataaattaa tgggtcacaa  
 540  
 ttcttaattt attaggaacg tatacttcat tttgagatgt tataaagttg gaagaagaaa  
 600  
 agggatatag aaagaataaa a  
 621

<210> 51  
<211> 480  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 51  
aagctccgcn cggggAACCT nnagagtcta cctgaatccc caagnngaa cgaataacttg  
60  
ccaacacaaaa tacgggcgat gggaaacatc tgaagaccgc tccaaagcgc cncatactaa  
120  
attgnnagga aaatttatct ctgacctttc atgggtgggg ggtgcacatctg ctataaggaa  
180  
gggttcattc tggcaagat ctgtggaaaa caatattgg gatcaaattt tagggagtgaa  
240  
tgctacaacc tcttcattat acatggattc tgaaataagt ggtgtgaact ttaaagtgaa  
300  
cgaagacggc atgcaaatgc ctggattca tctagttgat ttatggaga ctgacaccaa  
360  
tacaagcggc gataaacatg attccacta tcatgaagng ccatcatctt atgggtttga  
420  
gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgtactct gattggggaa  
480  
  
<210> 52  
<211> 480

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 52
aagctccgcn cggggAACCT nnAGAGTCTA CCTGAATCCC CAAGNTNGAA CGAATACTTG
60

ccaacacaaa tacgggcgat gggaaacatc tgaagaccgc tccaaAGCGC cncataactaa
120

attgnnagga aaatttataat ctgaccTTTC atgggtgggg ggtgcATCTG ctataaggaa
180

gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaATTt tagggagtga
240

tgctacaacc tcTTcattat acatggattc tgaataaagt ggtgtgaact ttAAAGTgaa
300

cgaagacggc atgcaaATgc ctggTattca tctagttgat ttatttgaga ctgacaccaa
360

tacaagcggc gataaacatg attcccacta tgatgaagng ccatcatctt atgggtttga
420

gggcTTacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggga
480

<210> 53
<211> 736
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 53
aatttattta gttgatataaa ccacttcaa aaatctgact tacaagactc tttagaattc
60

ataatagtga cacttgatta agtttagatta gactttataa aacacgagtt tgatttttt
120

tttaataata attaaggTTC tagcttatAT atattatata gttgatatag actactttca
180

aaagtctgac ttAAAAGTCT CTTAGTATA cataataata taacctttta atttagttaa
240

aaaatttgc cctaaataaa ttaataaATC caaacttata tacaagttaa taggcttaag
300

tcttaaaaaaa ataatatata tatatatata taaAGCATTAA aaacatttca atgaaaacaa
360

```

tataataata ataataataa atatattatt gttattaatt catagatttt attattacta  
 420  
 ttatagaata atttgtgtgt atatatataa atatatacag agagagaggg tcattttata  
 480  
 tgagtgagaa aatttaaata ttattatgaa ttttcaaaat taaaatcaca tgccatatga  
 540  
 ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg ttttaaaaac  
 600  
 taatttaaat aacttatata taactatatc agntaaaatt ngggtcataa aataagtata  
 660  
 tcagntattt tacaaaaatt ataagtnnc accaaatgat agtcccaggn  
 720  
 gatgggnncag cttnng  
 736

<210> 54  
 <211> 642  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 54  
 ttaactttac acaacacacc accagagtgt aagctgttcc ataaaaaaatg attgtttcg  
 60  
 gctttcgat cacaaggctt gtttagtatt cggttaagaaaa gaaagaaataa ggtgataaat  
 120  
 aaagtggata gaaacataaa agaaaggaat aaagtaatga aaataagggaa gaagtagaat  
 180  
 aatggaaata gataagaaat agaatggatt cgatagtata tctagttaa gagaaataag  
 240  
 aaaaaataag aacaagaaaaaaa aaaattgcat tttaatttat tatttgact gtatcgatga  
 300  
 ttggcacgag attataagtt tttttttcg tgtttacgtt gaaggattat atatcataacc  
 360  
 atttgggtgtt caaccaacac ggaactttaa gtctcttgat gttcaaaagc actaaaaact  
 420  
 aaggaatttt acatcatatt agtcgctgta gactgataca ggatttaag cctatataatc  
 480  
 tagcattgat cgggtgtcaa tcaatatcac attaatgatc ggttaaaccat tcatataacc  
 540

cctttgattt gtcaggaaat ggcttatga atncccagga ttgagccag aagacaggtg  
600

atacttaggtt caattcatgg ttttaggata ggctcgtaaa cc  
642

<210> 55

<211> 659

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 55

aaaaggacct aaaagcaaaa agaaaattga gtatccttag gaattaaaaa tattccaata  
60

aaaataaaaat aaagatccaa atgatagtgg gataaccgaa gaggaatgtc tttcaaccac  
120

tgcctgaccg ccaccactgc caacagccta gtatcaaccg aatccacata taccaacaat  
180

cttcagacaa acacttctaa gttggtgctg aagagacaat atctcatggg tagatcaaat  
240

taagagtgt accaataaca aaatcggtt catttacta acaaacagtt atgtgcattt  
300

gatgttctac catagtagcat tgctttatgt gaaattcttt taattattca atattgacat  
360

gnctttatat atatatatat atatatatat atatatatat atatacgagg gattgnatta  
420

tctctgaaaa aagattttat cataaaatca taatgatttc tcataatgna tctttacatt  
480

ttaaaggtag ataaataaaa ttgatTTAA tnggnagata taattaaaat acataattaa  
540

tatgactttt aaccaaattt atatataaac actaaaaaaa aagttcatga acgnccgggg  
600

ngnattggnt gggncaaaaaa aaaattaata ctatcaacct aattaaaaat tatttatan  
659

<210> 56

<211> 805

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 56

ccaatgccag agttcccta tcgtggccc cacctatgaa gaatacaccc acgttcaa  
 60  
 acatgttgtt gttgttggac gcgcgcagcc gagagtgcgc gtccacgagt atccccaa  
 120  
 tgcgtggcgc atgcgttga aacctagtat tcatcttcct gatggaggca gccacgtgtc  
 180  
 cgacaaggc aatgttgcgc ttctcgtaa aaggatgat aatgaaaggc accatattgt  
 240  
 ctggcgag gttgaaaatg gcgtcgta tgctctgtt aggtgccacg ttgtatgttag  
 300  
 gaagaacctt gactggccca cttgagttgt tggagtagtt ttcgaaggct tgcgtatgt  
 360  
 ggttggtgtt gggtaattc acagacaaga attttctgcg accgtgtcta tgtttatgg  
 420  
 gaaggagaat ggggcactt ttccccacga gctcgataag gtggactgcg tagacgcata  
 480  
 tggggctctc ttgcactggg ttgcactctt ctaataaggc agtgtatgcca cgcacgtttgc  
 540  
 ctttcattat gtacacaaca aaacaatgtg aaaactctct gtttcttgg ggtgctttgg  
 600  
 atcgttctcn agttccctt cgaataagct ttctgcgtgn tacttchagg ggcnnatgct  
 660  
 ttgtaccaat atgnntancc caagggngt tnccattncn ggtcttact accacnacat  
 720  
 aacaccnat tnnttgaann gnancnac caacntctac naaancgtna tcaatnacnt  
 780  
 tnnatngat ttgannact ggccn  
 805

<210> 57  
 <211> 632  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 57  
 tttagaattc ataatagtga cacttgatta agtttagatta gactttataa aacacgagtt  
 60

tgatTTTT ttataataata attaaggttc tagcttatat atattatata gttgatata  
 120

actactttca aaagtctgac taaaaagtct ctttagtata cataataata taaccttta  
 180  
 attagttaa aaaatttgc cctaaataaa ttaataaaatc caaacttata tacaagttaa  
 240  
 taggcttaag tctaaaaaaa ataatatata tatatatata taaagcatta aaacatttca  
 300  
 atgaaaaacaa tataataata ataataataa atatattatt gttattaatt catagatttt  
 360  
 attattacta ttatagaata atttgtgtgt atatatataa atatataagag agagagaggg  
 420  
 tcattttata tgagtgagaa aatttaaata ttattatgaa ttttcaaaat taaaatcaca  
 480  
 tgccatatga ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg  
 540  
 ttttaaaaac taatttaaat aacttatata taactatatc agttaaattt ggtcataaaa  
 600  
 ataagtatat cagttatTTT aaaaaattat aa  
 632

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<210> 58
<211> 437
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 58
ctttgacac tatngaatac gaattcgaat gtccggacgt gcagatacga gggtgagctt
60

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gtttaggttt gttatcgtga acaagaaacc gtgtggttgt aaaatttattt tgacaagaga  
 120  
 agagcgtgaa gaggaagagg aagataaccat gttggacgag gggtaattt acgagttcaa  
 180  
 gagcatgaaa tatggcattt gtaacgtttt ttggtaacgag attacgggtt acgatgggg  
 240

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ggaggtttt gaagcgtgc atagtttggaa aggaaactat gatcttgtga tggggaaag
300

```

gcccacaat gatggatctt tgaatggaaa agaaatgaca actttcatgg agaacgctga  
 360  
 tgcattggaa atattgtggg atatgtccc ttccccanc ntgnntggcn tngttccgct  
 420

tttttcgnct ntnngcc

437

<210> 59  
<211> 681  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 59  
ggnttctta gggcttcaaa atttgatcct agatcataac tttttcact ggtgacgttc  
60

ctgcttcctt gggtagctta agagagctca atgagattc ccttagtcat aataagttta  
120

gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta  
180

ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttagactgc  
240

tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta  
300

atctttctgt tctgattttg agtagaaacc aatttagtgg acatattcct tcaagcattg  
360

caaacatssc ctcgcttagg cagcttgatt tgcaactgaat aatttcagtg gagaaattcc  
420

agtctccctt gacagtcaag cgccagctaaa tctcttcaat ggttcctaca atagcctctc  
480

agggtctgcc cccctctgct tggcaagaaa tttaactcaa gtcatttgt gggaaatatt  
540

caactatgtg gggtagcc ttcaacccca tggcttcca agctncatca caagggggca  
600

ttggccccct cctgagnncc aaacatcacc atcataggaa gctaacccca aagacataat  
660

tctcatagta nccaggaggt n  
681

<210> 60  
<211> 644  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 60

acaacaagca acgaacagct tttaaccta aactaggcta atgccaatat taaagaagaa  
 60  
 ataattaaaa ttgttaaggct ggtcgttat aaattaaaca aaaggccctc tattcaaacc  
 120  
 ttcatataatc atacctgttt ttaattaacg cggactactt tttcatataa aaaaaagatc  
 180  
 attagaggat taatttaaag cgtttttagtt ttaattacc aaagagtata attattatta  
 240  
 ggcgccttgtt cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaagtcaa  
 300  
 attggactaa tgcaaaaagtg gcacaatctt tgtcttgaac tcttaatta gcaacaatt  
 360  
 atactcttgc acacaatca caagaataacc ttacatgaaa agaatggtaa tttgacgggt  
 420  
 tacattaaat tatatgcagt ttctgcagg taattaattt tcaagaattt aagggtgggt  
 480  
 ggtaattttc aatagctagc ttgactagca aaggaaagaa taaaggtaaa atgcttcttg  
 540  
 gtttggcctt ttggattggat atacttttg ctaaacggaa atggttatata gaatggtaaa  
 600  
 ggagataaaat tggcacatag ctaaaatggt atagncttaa tccn  
 644

<210> 61  
 <211> 678  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 61  
 aaattcattt aacttctcta attttaaat cgatcaaatt tggttttca atctaaaata  
 60  
 taagaaaacta tattttgtga tgggttaaaa atcgacatta agtgttctta atctaccaca  
 120  
 aaaagcacat ttccaaaaaaaa ataaatttaat tttaaaaatt ataagatcaa attgaatcaa  
 180  
 tttaaaaat taaaatatta aattgaaaaa aaaaataaag gatcaaattg aacataaata  
 240  
 ataaatttga ggattaaaaa actaattaa ccttaattt tttctcactt atattaatat  
 300

taaaaaatta tattgatttt cctaataact ccttatctca attaaaattt ccaaaaatta  
 360  
 attctagcat cttcaaacac tactcaccat gaaagttcat cacaaccatc tttctttctc  
 420  
 ttttctctac atcatgtttt cgcttcgcaa actttattgt gttcctagtc ttagacgtct  
 480  
 gataatcttc cacaagtatt gaactataac acttatttgg a cttgcacccgg taatagctaa  
 540  
 caccaaatga gacgtgcact tgacttttat atcactaaga aaatttcaac acattgacca  
 600  
 agattagctc catcttgctt taacacttgg ttgactagtc acttaagtgc aacaaccact  
 660  
 ttgatatcat tgggtggaa  
 678

<210> 62  
 <211> 571  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 62  
 tcttttaaga ccattcgaca ctatagaata cgaattccat aattaacaat aaagtcatct  
 60  
 tctattatata ttttttctt cttaaattac atgatagttat ttcatcatta tttgacaata  
 120  
 atgatatttt tatctcataa atattatttt gttttaaaaa tattcatagc acacacgagt  
 180  
 tttttatatc aacaaagagg tatcacttca gttggtaat ttggtaac ttttagacaa  
 240  
 tgtcgatag ttgaatttga ttggaaatttgc gcaatataa ttatcttt tgccccctta  
 300  
 ttttcaatca aatttagatgtt gacgcctcgat attattggca tacatggata ttggatcggt  
 360  
 acctgtgtttt cagaccttggatc tcacatcttca ctcggatcga ttatcttca catgaaaatt  
 420  
 ccaaaaataat gaaagatatg gcaatttggca ccatgttact ctatggacac caatgcttca  
 480  
 ccgttagagct ctaaatttcg aggcccttcta tatatagtttt tgcgtacta tgtnaaattt  
 540

ntcaatatcn tnttaatttt tttgnggcc c  
 571

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<210> 63
<211> 856
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 63
aattagttgt ctgtttatt cattacctt tcaattttt taatcaccat aattaaggcc
60

tttcgaatcc cttaagtga taaaagaaac gtgcaattat gcgaacaaat aaatttcgt
120

tatgttacta tttagtcaag gaggaaaaaa aagtgataag ggaagaaaca agggatattt
180

cctgttataa caaacttaaa atggcgacta ttttgacgac attgcaaata ctcatagtac
240

gatataaatt ttgaatttaa tatacatga ataggcatat tcattttcta ccccaaaaaaa
300

gcataactcat ttatgtacat ttaattttct ctccatagag gaattaatgt acaaccatgc
360

ataagggatg agcgaaaggg acagattatt gcaatccaga agcatccaag gaaagttgga
420

taaacaatac aattaatata tataaaaaaa aaacaaaaat gtccttagta gaagattaaa
480

ggaagagttg gctatatatg gcaaaccctt tctaactggt ttacccttt ctcatcaccc
540

gcattgcac accaatacgg gaactttcc cattacaaaa ctcattggaa gccaacatata
600

cccccaaaaat tccactggat ctgcattgtc catgaaattt gacatttctt cttctacaaa
660

atccccatgc tatgtcgttt tccaccatcc taggtcatag tccttottca ttccccgaat
720

cgnttcacac ttgtatgcaa tcttccaccc cagcctcatg ggaaacacccg ntaacactat
780

cactctaata tcattcttgg cataaactca tctataaacc tctcgncac gggctttta
840

aattctcatac ttnttn
856
  
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<210> 64  
 <211> 639  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 64  
 tccccttgg gtcccaagta ataggccctc agagccaaaa cattggggtg tctaatttt  
 60  
 cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat  
 120  
 ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg  
 180  
 ctctttcca tcatctcagc tggcacac aagagatcat cagctgtaaa agccattgg  
 240  
 ccatcaaaat ggacttagtt ccctccagcc tccccacctg cttcaacatc accaccagca  
 300  
 actggaggga ctcccttttc tgtcctcata gtggccgctc taccctcggt ggcttggccg  
 360  
 tcccggcctt agatgttcat ctctttctga tcaggcagaa aagcaggaca caacaaagta  
 420  
 taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt  
 480  
 ctatgatgg gatggttga cacttcagga ggtggggcaa tgactccttg tgatggagct  
 540  
 tggaaagac atggggttga agggctggac ccacatagtt gaatattcc acaaatgagc  
 600  
 ttgagttaaa attcttggca agcananggg ggacagaan  
 639

<210> 65  
 <211> 495  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 65  
 ttcccaatgc cgagcttcc ctatcggtgg ccccacctat gangaataca ccctcgaatg  
 60  
 aaatacatgt ttttgtnt ggacgcgccc agccgagagt gccggccac tagtatcccc  
 120

aacgtgcatg ggcgtgcgc ttgaaaccta gtattcatct tcctgatgga ggcagccacg  
180

tgtccgacaa ggtcaatgtt gccgtttcg taaaaggaa tgataatgaa aggaccata  
240

ttgtcttggg cgaggtgaa aatggcgtcg tgcgtctct tgtaagggtgc cacgttgatg  
300

taggaaagaa ccttgactgg cccacttgag ttgttggagt agtttcgaa ggcttgcgtg  
360

atgtggttgg ttt  
420

atggaaagga gaatgggtgc actttccca cgagctcnat aagggggact gcntanacnc  
480

atatggggct ctctt  
495

<210> 66

<211> 480

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 66

cnnntttttaga atcgaattct ttggatcacg aacatatcacg tcatttttaa agaataagaa  
60

attaaatttag acttaatttt taagagtatg gattaaaatg taaaatttgt ggggattata  
120

aacataaaata agtaattttt cctatatcacg acatttatttgg aaatcttaag ataagataacg  
180

tacatgcaaa taaaatttatgat gcatgataat agaatttagt gaatagtcca atacctgaca  
240

cctctttgggt ccgaagtttt tggggactt cttgatacct aaaccacacg tgaagaagag  
300

gctctggtca atttcgtgg gtacttcaac ttttcttaggg cttctgaacg ttttgcgtaa  
360

ggaagtgtact gcgtttgtgt ccgttgtaag cagggagtgg aggcatata ggtttgggtt  
420

tgttctttac tccttggca cgatggtgag aatgcttattt gtgggtattc ggtgatttgt  
480

<210> 67

<211> 669

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 67
atgccccaaa aatttaccta aaagcaaata aaaaagatga gtatttcttt taaattaaaa
60

atatttaat aaaaataaaaa taaagatcca aatgataatg tgataaccga agaggaatgt
120

ctttcaacca ctgcctgacc gccaccactg ccaacagcct agtatcaacc gaatccacat
180

ataccaacaa tcttcagaca aacacttcta agttggtgct gaagagacaa tatctcatgg
240

gtagatcaaa ttaagagtgc taccaataac aaaatcgaaa tcatttgact aacaaacagt
300

tatgtgcatt gnatgttcta ccatagtaca ttgctttatg taaaattttt ttaatttttc
360

aatattgaca tgggtcttat atatatatat atatatatat atatatatat atatatacga
420

gggattgtat tatctctgaa aaaagatttt atcataaaat cataatgatt tctcataatg
480

gatctntaca ttttaaagggt agataaaataa aattgatttt aaatngggag atataattaa
540

aanacataat taatatgact tttaacaaat tgatataaa acactaaaaa aaaagntcca
600

tgacgcacng ggggnattgg tggcacaaaa aaaattatct atcactaatt aaaantatta
660

taaatatan
669

<210> 68
<211> 486
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 68
tggtgtatat aattaaaaatg agttaatat ttatgtatta atagtataaa atttacata
60

catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaa atttacatga
120

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tgaatgaata acttttttt tctcaattaa aattatgatc ctttgcgt atgtttact  
 180  
 gtgtcgacct ttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaaag  
 240  
 aaggagaga gaagttgact ttcctttaa ttagttaga gaaaattaga cgagaaggaa  
 300  
 aaaaaatagg cgaaagtac ttttcttc tatctctacc aagaatgtt ataaaaaagt  
 360  
 ggggagcaga atttaaatt ttatatttca tatttaccc tctccacatt ttgnnttct  
 420  
 tccattttt tataaaanga tttattttag gcatagnaa ctttcaatt ttttcattt  
 480  
 ctattc  
 486

<210> 69  
<211> 779  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 69  
tatttgtaaa ttgttttta taattgaaaa gaaaataagg taaaattatt ttcataaaaa  
60  
aaatthaatt tggtttata agttatttg aaaatttat taaaataagt tgaaaacaat  
120  
ttataaataa atcataaact ataattttat aagtttctt aaataacttac acgtatgcc  
180  
taaaataagt tcagataaga tataaataaa ttccctccaa cacatctaa atctatattt  
240  
ttttaaaaca aactttcatc gttaaaagga tattataata ataataataa acttcaatca  
300  
ttaacaatta atatatgtgg ataaaaagagc attcaaaatg atatttatt agcacatgac  
360  
aaatcacatt actctcaagc tatttttta aactaataaa aacttacata ttatatgata  
420  
tgatataac tctctctata tttacacttt tttgagataa acaaggataa aaaatgtgt  
480  
aaatatgacc gcatataata ttatttataa tgtacggat gccgttttg acattttata  
540

taatataatct gggggcaatt attttcttaa ccaataatta gcaaattttt atcttgcttt  
600

ttctccatgg gggctaaatt aaactaaagg gncgtaccca atccagtcgg acctttttt  
660

aaataatnn tttccntccc acttagnaaa ggagtnttn ggcttaaatn ggcagnncca  
720

ttaaccataa gccttntgg taaggagtct taccaantaa aatggggaag gccccccccc  
779

<210> 70

<211> 677

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 70

ttattggcctt aacctgagtt tcaactcctt ctctggcctt ttaccagcta gcctaactca  
60

ctcattttctt ctcacttttc tttctttca aaataacaat ctttctggct cccttcctaa  
120

ctcttgggtt gggaaattcca agaatggcattt ctttaggctt caaaatttga tcctagatca  
180

taacttttc actggtgacg ttcctgcttc tttggtagc ttaagagagc tcaatgagat  
240

ttcccttagt cataataagt tttagtggagc tataccaaat gaaataggaa ccctttctag  
300

gcttaagaca cttgacattt ctaataatgc cttgaatggg aacttgcttg ctaccctctc  
360

taatttatcc tcacttacac tgctgaatgc agagaacaac ctccttgaca atcaaatccc  
420

tcaaaagtta ggttagattgc gtaatctttc tgttctgatt ttgagtagaa accaatttag  
480

tggacatatt cttcaagca ttgcaaacat ttcctcgctt aggccagcttg atttgcactg  
540

aataattca gtggagaaat tccagctcct ttgcagtcag cgccagctaa tctcttcaat  
600

ggttcctaca atagcctctc anggtctgtc ccccccctctgc ttgccaaagaa atttactca  
660

agctcatttg tggaaat

677

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<210> 71
<211> 571
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 71
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60

gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt
120

tttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat
180

tttgtccactc ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag
240

acaccccagg tgatttcctc gtttaggagtt ctaacaagat aacaccaaga ctgttagatat
300

cagttttagt gtttgcttgc ttgagcttg agagctcagg tgcccggtat cccaatgctt
360

cagctgttagc tatacgttg gaattagcag cagttgacat caaccgagaa agacccaaat
420

ctgcaatttt agcatttgnat ttctcattaa acaacacaat gntggatgng anggtnccat
480

ggatgaaggt ctctnggna agnaagnaaa acaaaggcacc gggccaaggn ttgggctaatt
540

ttcaacccttg gggggcaaac naanaaatgt t
571

<210> 72
<211> 756
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 72
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60

cattttctct cactttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact
120

gtgggggggg gaatancaag ggnggcttta ggctgcaaaa tttgatccta gatcataact
180

```

ttttcaactgg tgacgttcct gcttcttgg gtagcttaag agagctaat gagattccc  
 240

ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta  
 300

agacacttga catttctaatt aatgccttga atgggaactt gcctgctacc ctctctaatt  
 360

taticctcact tacactgctg aatgcagaga acaacctcct tgacaatcaa atccctcaaa  
 420

gtttaggttag attgcgtact ctttcctgtt ccgattttga gtagaaacca atttagtgga  
 480

catattcctt caagcatngc nnacattcc tcgcttaggc agcttggattt tcactgaata  
 540

atttcaggtg gagaattnc agtctncttt gacagtccgc gcagtctaaa tcttcttcaa  
 600

tggtnctac aataggcctc tcagggctg gccccccctt gnttggccaa ggaaanttaa  
 660

cttaagctta tttggggggg aaanattcaa ctatgggggg acncggccct ttaaaccctt  
 720

gggntttcc caggttcctt ccaaggngc anttgt  
 756

<210> 73  
 <211> 557  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 73  
 tgtgactgat ctctctggtc taatctcttc cagctgctgg agaacttgat gaacttctgg  
 60

tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt ttagcaactc  
 120

gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat ttgtccactc  
 180

ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag acnccccagg  
 240

tgatttcntc gtttaggagtt ntaacaagat aacaccaaga ctgttagatat cagtttttagt  
 300

gtttgcttc ttgagcttg agagttaagg gncccgant cccanngntc nagttgnagt  
 360

tatancgtt gaaatttcgtc nagttgcntc aaccgaaaaa gaccaaaatc tgaattttag  
420

catttgggtt tcatacgca acacatttgtt ggatgngagg tcccatgtat gatgttctcc  
480

tgggaatgaa ggcaaacaag cccggccaa ggcttgggtt atttaatcc ttgggtggcca  
540

aacaatgaaa ggttnat  
557

<210> 74  
<211> 673  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 74  
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60

aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaaa aaacctcatt  
180

tgtccactcc tcttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga  
240

caccccagggt gatccctcg ttaggaggatc taacaagata acaccaagac tgttagatatc  
300

agtttttagtg tttgctttct tgagcttttgg agaagctcag gtgccccgtt tcccaaattgc  
360

ttccagctgt agcttatcac cgttggaaat taagcagcaa gttggacatt caacccggag  
420

aaaaagaccc aaaaatttttgc caaatttttgc agcaatttng gnanttcttgc aatcaaggcc  
480

aaccaccaat tggnttggaa atggtggaaat ggtttccca atggtaatttgc gaagggtttc  
540

ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaagggt  
600

nttttggggg ctttattttt tncnaatncc ctttgggnngg ggncccaaattt tcnaaaantgg  
660

aaattggntt tnn  
673

<210> 75  
 <211> 602  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 75  
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 60  
 gtggaattag caagactata agggattgct cctgtgagca agttgttgct gaggtcaaga  
 120  
 gactgaagca aagggcagaa acctaaagaa agaggtatgg aacctgtaag cctattgttg  
 180  
 aataactgaa cccctctaag gttggaaaga agtcccaaag ttgaaggat tgaaccacca  
 240  
 atttggttat catgaagact aagcttcctg aggccttgaa gttggccaat tttggcggtg  
 300  
 attcgacccc tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac  
 360  
 ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa  
 420  
 gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga  
 480  
 taggagggtg cttttccct ttcactggnc tacctttcg ggaataagcc acctaattgag  
 540  
 aaagaaagan ctggatagc taactctaca tagnctcaag gcnaagagata attaggaaaa  
 600  
 ng  
 602

<210> 76  
 <211> 748  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 76  
 attggcttaa cttgagtttc aactccttct ctggccttt accagctagc ctaactcact  
 60  
 cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact  
 120

cttggggtgg gaattccaag aatggottct ttaggcttca aaattgtatc ctagatcata  
180

actttttcac tggtgacgtt cctgcttctt tgggttagctt aagagagctc aatgagattt  
240

cccttagtca taataagttt aatggagctg taccaaataatga aataggaacc ctttcttaggc  
300

ttaagacact tgacatttctt aataatgcct tgaatggaa cttgcctgct accctctcta  
360

atttatcctc acttacactg ctgaatgcag agaacaacct cttgacaat caaatccctc  
420

aaagtttagg tagattgcgt aatcttctg ttctgatttt gggtagaaac caattttagtg  
480

gacatattcc ttcaagcatt gcaaacatctt cctcgcttag gcagcttgat ttgcactgaa  
540

taatttcagt ggagaaattc cagtctcatt tgacagtcaa gcgcagaatctt aatctcttc  
600

aatgtttcct acaatagcct ctcanggtct gnccccctc tgcttgccaa gaaatttaac  
660

tcaagctcat ttgtggaaa tattcaacta tgtggacag nccttcaacc ccatgtttt  
720

ccaagcttca tacaaggagc atggccct  
748

<210> 77

<211> 563

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 77

ctggctgtga ctgatctctc tggcttaatc tcttccagct gctggagaac ttgatgaact  
60

tctggtcgtg ctgatggaga aggtcaaca cagtcaaag cgagctcaa cgtgttttagc  
120

aactcgtcgc caactgtgga tgcattcttc atcaagtctg catcaaaaac ctcatttgtc  
180

cactccttctt tgacaactga ggcaacccac tgaggcaaat ctgtccatt catagacacc  
240

ccaggtgatt tcctcgtag gagttctaac aagataaac acagactgta gatatcgtt  
300

tttagtgtttg ctttcttgag ctttgagagc tcaggtgccg ggtatccaa tgctccagct  
 360  
 gtagctatca cggttggatt agcagcagtt gacatcaacc cgagaaagac caaaatctgc  
 420  
 aatttttagca tttgttattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat  
 480  
 gatgttctcc tgggaatgaa ggcagaacaa gccacggcca agcttggcta tttcatcctt  
 540  
 gtggccaaatc aatgaatggt cat  
 563

<210> 78  
 <211> 623  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 78  
 gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttatTTggT  
 60  
 atatataacca tgtggagtat agtatcactt tttgtcctac aaccacattt tatgagactt  
 120  
 gcattttatg tgacatgaac ataaaaaaaata atgaaaaaaga aaatgtcaca tatatatgat  
 180  
 acaatcttt taaaagtcaa tttgaataat ttttcattcag gagaaaaaag aagagagaaaa  
 240  
 atgaattaag tttcttctaa aaattaaaat caacttataa aaagaaaaaa cttaatgaa  
 300  
 aaaaattcaa aaagaaaaaag aataaaatga tcaatagcct ttaggttaa gcacaaggta  
 360  
 aatccaaata aagacccaa aagatagtac agaacccaaat aatggtaaaa tcttagaaata  
 420  
 tacatgtaaa gactgcattt atagaccatc atgactagca aatgctaaa ggcacataga  
 480  
 tgaattaatc tatgcaacaa aatctgnccc aagtttttt tangcaagga aaatcatatc  
 540  
 attttattaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt  
 600  
 acatgaaatc tgtcaccaag tac  
 623

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<210> 79
<211> 605
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 79
ctcccggtc ccaagtaata ggccccttag agccaaaaca ttgggggggc taattttcc
60

tagaacactg acttctgatt caaattctct atgaccttta gtgatctttt ccctcaatct
120

ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct
180

ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc
240

atcaaaatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac
300

tggagggact ccttttctg cctcatagtg gccgctctac cctcggtggc ttggccgntc
360

ccggccttag atgntgatct ctttctgatc aggagaaaaa gcaggacaca acaaagnata
420

atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagctc
480

ctatgatgg gatggttnga cactcanga gggggggcaa tgactccctg gganggagct
540

tggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaaangag
600

cnnngn
605

<210> 80
<211> 711
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 80
ttaangncca acgactcaact atagggcgaa ttgggcccga cgtcgcatgc tcccgccgc
60

catggccgcg ggattggctt aacttgagtt tcaactcctt ctctggtctt ttaccagcta
120

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gcctaactca ctcattttct ctcacttttc tttctcttcn taaaataaca atctttctgg  
 180  
 ctcccttcct aactcttggg gtgggaattc caagaatggc ttcttttaggc ttcaaaattt  
 240  
 gatcctagat cataactttt tcactggtga cgttcctgct tctttggta gcttaagaga  
 300  
 gctcaatgag atttccctta gtcataataa gtttagtgga gctataacaa atgaaatagg  
 360  
 aaccctttct aggcttaaga cacttgacat ttctataat gccttgaatg ggaacttgcc  
 420  
 tgctaccctc tctaatttat cctcacttac actgctgaat gcagagaaca acctccttga  
 480  
 caatcaaatc cctcaaagtt taggttagatt gcgtaatctt tctgttctga ttttgagtag  
 540  
 aaaccaattt agtggacata ttccctcaag cattgcaaac atttcctcgc ttaggcagct  
 600  
 tgatttgtca ctgaaataatt tcagtggaga aattccagtc tccttgaca gtcagcgcag  
 660  
 tctaaatctc ttcaatgttt cctacaatag cctctcaggg tctgtcccc n  
 711

<210> 81  
 <211> 716  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 81  
 ttnntgaaaa cccttgcta ttttaggtgac actatagaat actcaagcta tgcacccaaac  
 60  
 gcgttggag ctctccata tggtcgacct gcaggcgcc gcactagtga ttaatacgac  
 120  
 tcactataagg gctcgagcgg ccgcggggc aggtggact ggctgtgact gatctctctg  
 180  
 gtctaatctc ttccagctgc tggagaactt gatgaacttc tggcgtgct gatggagaag  
 240  
 gatcaacaca gtgcaaagcg agcttcaacg tggtagcaa ctcgtcgcca actgtggatg  
 300  
 catctctcat caagtctgca tcaaaaacct catttgccttca ctcctctttg acaactgagg  
 360

caacccactg aggcaaatct agtccattca tagacacccc aggtgatttc ctcgttagga  
420

gttctaaca gataaacacca agactgtaga tatcagttt agtgttgct ttcttgagct  
480

ttgagagctc aggtgcccgg tatcccaatg ctccagctgt agctatcacg ttgaaattag  
540

cagcagttga catcaaccga gaaagaccaa aatctgcaat tttagcattt gtattctcat  
600

caagcaacac attgctggat gtgaggttcc catgtatgat gttctcctgg gaatgaaggc  
660

agaacaagcc acgggccaag tcttggcta ttttcattcct tggtggcca atcaan  
716

<210> 82

<211> 713

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 82

tccctaangc ctacgactcc tatagggcga attgggccccg acgtcgcatg ctccggccg  
60

ccatggccgc gggattatac gactcaatat agggctcgag cggccactat gaggacagaa  
120

aaaggagtcc ctccagttgc tggtggtgat gttgaagcag gtggggagggc tggagggaaa  
180

ctagtccatt ttgatggacc aatggctttt acagctgatg atctcttgc tgcaacagct  
240

gagatcatgg gaaagagcac ctatgaaact gtttataagg ctatttgga ggatggaagt  
300

caagttgcag taaagagatt gagggaaaag atcactaaag gtcataloga atttgaatca  
360

gaagtcagtg ttcttagaaaa aattagacac cccaatgttt tggctctgag ggcctattac  
420

ttgggaccca aagggaaaaa gcttctggtt tttgattaca tgtctaaagg aagtcttgct  
480

tctttctac atggtaagtt tcgtgtgctg ttcttcatt aagtgttgc tgcgtgttc  
540

tttaattata atttggagtt ttaccttagt aatctgtata attctaatacg gagaacagta  
600

caaacaaaaa cacctaagga acaacacctt anctttaata taccatatca ataagtgaat  
660

tattttctta ttcatcttga tgcaggtgg ggaactgaaa catttatttg atn  
713

<210> 83  
<211> 712  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 83  
nnnctaaggc ccnttactca ctatngggcg aattgggcc gacgtcgcac gctccggcc  
60

gccatggccc gcgggattgg cttaacttga gtttcaactc cttctctgg ccttaccag  
120

ctagcctaac tcactcattt tctctactt ttcttctct ttaaaataac aatctttctg  
180

gctcccttcc taactcttgg ggtgggaatt ccaagaatgg cttctttagg cttcaaaatt  
240

tgatcctaga tcataacttt ttcactggtg acgttctgc ttcttgggt agcttaagag  
300

agctcaatga gatttccctt agtcataata agtttagtgg agctataccca aatgaaatag  
360

gaacccttcc taggcttaag acacttgaca tttctaataa tgccttgaat gggacttgc  
420

ctgctaccct ctctaattta tcctcactta cactgctgaa tgcagagaac aaccccttgc  
480

acaatcaaat ccctcaaagt ttaggttagat tgcgtaatct ttctgttctg atttttagata  
540

gaaaccaatt tagtggacat attccttcaa gcattgcaaa catttcctcg cttaggcagc  
600

ttgatttgca ctgaataatt tcagtggaga aattccagtc tcctttgcag tcagcgcagt  
660

ctaaatctct tcaatggtn ctacaatagn ctctcagggt ctgncccccc tn  
712

<210> 84  
<211> 681  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 84
ggnttctta gggcttcaa atttgatcct agatcataac tttttcaact ggtgacgttc
60

ctgcttcttt gggtagctta agagagctca atgagatttc ccttagtcat aataagttta
120

gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta
180

ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttacactgc
240

tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta
300

atctttctgt tctgattttg agtagaaacc aatttagtgg acatattcct tcaaggatttg
360

caaacatttc ctgcgtttagg cagcttgatt tgcactgaat aatttcagtg gagaaattcc
420

agtctccctt gacagtcaag cgtagctaaa tctcttcaat ggttcctaca atagcctctc
480

agggtctgcc cccctctgct tggcaagaaa tttaactcaa gtcatttgt gggaaatatt
540

caactatgtg gggtagcc ttcaacccca tggcttcca agctncatca caagggggca
600

ttggccccct cctgagnggc aaacatcacc atcataggaa gctaacccca aagacataat
660

tctcatagta nccaggaggt n
681

<210> 85
<211> 639
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 85
tccccttgg gtcccaagta ataggccctc agagccaaaa cattgggtg tctaatttt
60

cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat
120

ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg
180

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ctctttccca tcatctcagc tggtcacac aagagatcat cagctgtaaa agccattgg  
240

ccatcaaaaat ggacttagttt ccctccagcc tccccacctg cttcaacatc accaccagca  
300

actggaggga ctcccttttc tgtcctcata gtggccgctc taccctcggt ggcttggccg  
360

tcccggcctt agatgttgat ctcttctga tcaggcagaa aagcaggaca caacaaagta  
420

taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtcttg ggcttagct  
480

ctatgatggc gatggttga cacttcagga ggtggggcaa tgactccttg tgatggagct  
540

tggaaagac atggggttga agggctggac ccacatagtt gaatattcc acaaatgagc  
600

ttgagttaaa attcttggca agcananggg ggacagaan  
639

<210> 86

<211> 661

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 86

gaaggatggc tattttgaag agaaagaaaa gtgagagaaaa atgagtgagt taggcttagt  
60

ggtaaaggac cagagaagga gttgaaactc aagtttagcc aataaagctt agtggattt  
120

gcaagactat aagggattgc tcctgtgagc aagttgttgc tgaggtcaag agactgaagc  
180

aaaggccaga aacctaaaga aagaggatag gaacctgtaa gcctattgtt gaataactga  
240

accctctaa ggttggaaag aagtccaaa gttgaaggaa ttgaaccacc aatttggta  
300

tcatgaagac taagcttctg aggcctgaa gttggccat tttgtcggtg attcgacc  
360

tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac ttgattccaa  
420

cccaccccttccg gaacaagctc catagccact gtcattccag cttccgcaag aacccttctg  
480

gatcagccaa ctcttgcttg aaaagcttat cacatgtacc ttttacagat aggaggntgc  
540

ttcttccttt cactggtcta cctcttcgga ataagccaac ctaatgagaa agaaagatct  
600

gngatagctn acttacatac tnagnagag ataattantg naagcnnaag taaaacntnt  
660

t  
661

<210> 87

<211> 626

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 87

aattcgtggg ctacaaaagga tgaacgtaaa ctatatgcac ctccagctgg ttcaggcttc  
60

atatctggct ttacttctat ctcacgcaga tcttctgttg atagtactca aaatctgtct  
120

atcccttttg gtccaaagctc atacctttct gcacaggctc gagtagttga tgagtattct  
180

atgtcccaga ttatcttaca aaatgtgctt gatggagggg tcactggat gttaatagtt  
240

gtcactggtg caagccatgt tacatatgga tctagaggaa ctggagtgcc agcaagaatt  
300

tcaggaaaaa tacaaaagaa aaaccatgca gttatattac ttgaccctga aagacaattc  
360

attcgcagag aaggagaagt tcctgttgct gatTTTTGT ggtattctgc tgcgagaccc  
420

tgttagtagaa attgctttga ccgtgctgag attgctcggg ttatgaatgc tgctggcgg  
480

aggcgagatg ccctcccaca ggtaaaccaa caattacagt tactaatttgc ttgtactgtt  
540

aatcttcttg ccccatagac cctncttcca attttagcc ctatgtcc ttcattccct  
600

agngggataa gggtttgggg gnggtg  
626

<210> 88

<211> 627

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 88
tgaaaaactg aaggaccaa tttaaatctaa aaaataaata aattaaaaga ctaaaaaata
60

aatctatcca aaattaaaag gtttattctt ggaagtaatg aaatgtatcc tgactcttg
120

aagaatgcata tactataatg aaagagtagg tggagagagg ggataataaa atcccactaa
180

ataacatcca tgactatcac tataaaaaaa aatattatta ttaagataag aagaattatc
240

taacttgaat aagagactac taccaaagtg agaaaaaggt cttataacat agagttttc
300

aagtttacct ataaaacttg taataagatt tgtttccaa ccatctaatt ttttatttagt
360

gtggactgca taaaaaaaaat atagtaacaa gaaactacta aattagactt tttgaactat
420

tcattgtatg gctgccatga aacacctacg cctggagggg tgggtccac gtaagactgt
480

aagagggagg aggaaagcac tagtcacaca ccggcgacg ttagcgaggc aatgttccta
540

gattgaaacg gagaaggtga ttagaggggc ggaaatctca aagcagacac aggcaactaa
600

tttatcgccct ctccctcat tcgctta
627

<210> 89
<211> 782
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 89
cacataatta acaataaagt catcttctat tatatatttt ttcttcttaa attacatgat
60

agtatttcat cattatttga caataatgat attttatct cataaatattt attttgttt
120

aaaaatattc atagcacaca cgagttttt atatcaacaa agaggtatca ctccagttgg
180

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tcaatttggt ctaacttta gacaatgtcg tatagttgaa ttgaattgga atttggcagt  
 240

atatatttta cttnnngccc ccttattttc aatcaaatta gagtagacgc ctcgtattat  
 300

tggcatacat ggatattgga tcggcacctg tgtttcagac ctgagtcaca tctgactcgg  
 360

atcgatttta tcttacatga aaattccaaa ataatgaaag atatggtaat tggcaccatg  
 420

taactctatg gacaccaatg ctgcacgtag agctctaaat ttgaggcctt ctatatacg  
 480

tttgcgtgac tatgtaaatt atcaatatca tttaattttt ttgcgaccac gaaatatacg  
 540

aatttattat tgaacacaaa aagtagagtg tatatttaa gtctaggatt ttatgagagg  
 600

caaaaataag aataacctct tgatatattt tcttggatac actttcttta ttatataattt  
 660

tttaataatg gattataatt tattggaaac aatcaaatta tangggaaaa ttcattggaa  
 720

taaaagaang aaatttaaaa aaaaatataa ttttaataa atttaagtaa taaaatcct  
 780

tt  
 782

<210> 90  
 <211> 160  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 90  
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 60

cataggaagc taagcaccaa agacataatt ctcatacgtag caggagttct cctcgtagtc  
 120

ctgattatac tttgttgtgt cctgctttc tgcctgatca  
 160

<210> 91  
 <211> 779  
 <212> DNA  
 <213> soybean  
 <220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
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tgctcccgnc gcatggccgn gggattggct taacttgagt ttcaactcct tctctggtcc
60

tttaccagct agcctaactc actcatttc tctcaacttt ctttctcttc aaaataacaa
120

tctttntggc tcccttncta actgtggggg gggaaatanc aagggnngct ttaggctgca
180

aaatttgatc ctagatcata acttttcac tggtgacggt cctgcttctt tggtagctt
240

aagagagctc aatgagattt cccttagtca taataagttt agtggagcta taccaaatga
300

aataggAACCC CTTCTAGGC TTAAGACACT TGACATTCT AATAATGCCT TGAATGGAA
360

cttgccTGCT ACCCTCTCTA ATTTCCTCTC ACTTACACTG CTGAATGCAG AGAACACCT
420

ccttgacaat caaatccctc aaagtttagg tagattgcgt actcttcctt gttccgattt
480

tgagtagaaa ccaatttagt ggacatattc cttcaagcat ngcnnacatt tcctcgctta
540

ggcagcttga ttgtcactga ataatttcag gtggagaaat tncagtctnc tttgacagtc
600

agcgcagtct aaatcttctt caatggttnc tacaataggc ctctcagggt ctggcccccc
660

tttgnTTGGC caaggaaant taacttaagc ttatTTGGNG gggaaanatt caactatggg
720

gggacncggc cctttaaacc ccagggnttt tcccaggttc cttccaaggg ngcanttgt
779

<210> 92
<211> 743
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
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60

attttctctc acttttcttt ctcttcaaaa taacaatctt tctggctccc ttcctaactc
120

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ttggggtggg aattccaaga atggcttctt taggcttcaa aatttgatcc tagatcataa  
 180

ctttttcact ggtgacgttc ctgcttctt ggtagctta agagagctca atgagatttc  
 240

ccttagtcat aataagtta gtggagctat accaaatgaa ataggaaccc tttcttaggt  
 300

taagacactt gacatttcta ataatgcctt gaatggAAC ttgcctgcta ccctctctaa  
 360

tttatcctca cttacactgc tgaatgcaga gaacaacctc cttgacaatc aaatccctca  
 420

aagtttaggt agattgcgtt atctttctgt tctgattttg agtagaaacc aatttagtgg  
 480

acatattcct tcaaggcattt caaacatttc ctcgctttagg cagcttgatt tgtaactgaa  
 540

taatttcagt ggagaaattt cagtctcctt tgacagtcag cgcaatctaa atctcttcaa  
 600

tgtttcctac aatagcctct cangttctgn cccccctctg cttgccaaga aattaactca  
 660

agtcatttg tggaaatat tcaactatgt gggacaggcc ttcaacccca ngcttncca  
 720

agtttcatca caaggggcat tgg  
 743

<210> 93  
 <211> 742  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 93  
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ctctcacttt tctttctctt caaaataaca atctttctgg ctcccttcct aactcttggg  
 120

gtgggaattt caagaatggc ttcttttaggc ttcaaaattt gatccttagat cataacttt  
 180

tcactggta cgttcctgct tctttggta gcttaagaga gctcaatgag atttccctta  
 240

gtcataataa gttaatgga gctgtaccaa atgaaatagg aacccttctt aggcttaaga  
 300

cacttgacat ttcttaataat gccttgaatg ggaacttgcc tgctaccctc tctaatttat  
 360

cctcacttac actgctgaat gcagagaaca acctccttga caatcaaatac cctcaaagtt  
 420

taggttagatt gcgtaatctt tctgttctga ttttggtag aaaccaattt agtggacata  
 480

ttccttcaag cattgcaaac atttcctcgc ttaggcagct tgatttgcac tgaataattt  
 540

cagtggagaa attccagtct ccttgacag tcaagcgcaa gtctaaatct cttcaatgtt  
 600

tcctacaata gcctctcang gtctgncccc cctctgcttg ccaagaaatt taactcaagc  
 660

tcatttgtgg gaaatattca actatgtggg acagnccccc aaccccatgt ttnccaagc  
 720

ttcataacaag gagcatggcc ct  
 742

<210> 94  
<211> 741  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
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tctctcaactt ttctttctct tcaaaaataac aatcttctg gtccttcc taactcttgg  
120

ggggaaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt  
180

ttcactggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gattccctt  
240

agtcataata agtttagtgg agctataacca aatgaaatag gaacccttc taggcttaag  
300

acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattt  
360

tcctcaactta cactgctgaa tgcagagaac aacctccttg acaatcaaataat ccctcaaagtt  
420

ttaggttagat tgcgtaatct ttctgttctg atttttagta gaaaccaatt tagtggacat  
480

attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgc ctgaataatt  
 540  
 tcagtggaga aattccagtc tccttgaca gtcaagcgca gtctaaatct cttcaatgtt  
 600  
 tcctacaata gcctctcang ttctgccccct ctctgcttgc caagaaattt aactcaagct  
 660  
 catttgtggg aaatattcaa ctatgtggga caggcattca accccatgtt tttccaagct  
 720  
 ccatcacaag gggcattgcc t  
 741

<210> 95  
 <211> 743  
 <212> DNA  
 <213> soybean  
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 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
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 120  
 ggtggaaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt  
 180  
 ttcactggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gatttccctt  
 240  
 agtcataata agttagtgg agctataacca aatgaaatag gaacccttcc taggcttaag  
 300  
 acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattt  
 360  
 tcctcaactt cactgctgaa tgcagagaac aaccccttgc acaatcaaatt ccctcaaagt  
 420  
 ttaggttagat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagtggacat  
 480  
 attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgc ctgaataatt  
 540  
 tcaaggggag aaatncagt ctcccttgac agtcaagcgca aagtctaaat ctcttcaatg  
 600  
 gttcctacaa taagcctctc anggtctgnc ccccctctgc ttgncaagaa aattaactca  
 660

agctcatttg gggaaatat tcaactatgn gggacagncc ttcaaccat gtttccaag  
720

ctccatacan gagcatggcc cnt  
743

<210> 96  
<211> 742  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
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<400> 96  
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tctctcaactt ttctttctct tcaaaataac aatctttctg gctcccttcc taactcttgg  
120

ggtgttggatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt  
180

ttcactggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gattccctt  
240

agtcatataata agtttagtgg agctatacca aatgaaatag gaacccttcc taggcttaag  
300

acacttgaca ttcttaataa tgccttgaat gggacttgc ctgctaccct ctctaattt  
360

tcctcaactta cactgctgaa tgcagagaac aaccccttgc acaatcaaatt ccctcaaagt  
420

ttaggttagat tgcgtaatct ttctgttctg atttgagta gaaaccaatt tagtggacat  
480

attccttcaa gcattgcaaa catttcctcg cttaggcagg ttgatttgc actgaataat  
540

ttcaggggga gaaattccag ttcctttga cagtcagcgc aagtctaaat ctcttcaatg  
600

gttcctacaa tagcctctca nggtctgncc cccctctgct tgncaagaaa ttaactcaag  
660

ctcatttggc ggaaatattc aactatgngg gacaggcatt caaccatgt tttccaagc  
720

ttcataacaag gagtaatggc ct  
742

<210> 97  
<211> 716

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<212> DNA
<213> soybean
<220>
<221> misc_feature
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gagggaaact agtccatttt gatggaccaa tggctttac agctgatgat ctcttgttg
120

caacagctga gatcatggga aagagcacct atggaactgt ttataaggct attttggagg
180

atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat
240

ttgaatcaga agtcagtgtt ctagaaaaaa ttagacaccc caatgtttg gctctgaggg
300

cctattactt gggacccaaa gggaaaagc ttctggttt tgattacatg tctaaaggaa
360

gtcttgcttc tttcctacat ggtaagttc gtgtgctgnt ctttcattaa agtgnntgggn
420

gggctggtct ttaattataa tttggagttt taccttanta atctgtataa ttctaattcgg
480

agacaagtca aacaaaaacc ctaaggaaca acnccttanc tttaatatnc catatcaata
540

angngaatta tttntttggt tcatttgatg cnngggggng gnacntnaaa ctttnattt
600

ntgggccacn anggnnnnaa aannncacaa anantggnc cngngnttn gnnntgcctt
660

tantnccang anaaacatna tacanggnan ctnncntcnn naangtnntn gttngn
716

<210> 98
<211> 616
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 98
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60

gagggaaact agtccatttt gatggaccaa tggctttac agctgatgat ctcttgttg
120

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caacagctga gatcatggga aagagcacct atggaactgt ttataaggct attttgagg  
 180  
 atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat  
 240  
 ttgaatcaga agtcagtgtt ctagaaaaaa ttagacaccc caatgtttg gctctgaggg  
 300  
 cctattactt gggacccaaa gggaaaagc ttctggttt tgattacatg tctaaaggaa  
 360  
 gtcttgcttc tttcctacat ggtaagttc gtgtgctgtt ctttcattaa gtgttgtgtg  
 420  
 tgctgttctt taattataat ttggagnttt accttagtaa tctgtataat tctaattcgga  
 480  
 gaacagtcaa acaaaacacc taaggaacaa caccttagct ttaatatcca tatcaataag  
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 600  
 caccanggat gaaaat  
 616

<210> 99  
 <211> 532  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 99  
 actggctgtg actgatctct ctggtctaattt ctcttccagc tgctggagaa cttgatgaac  
 60

ttctggcgt gctgatggag aaggatcaac acagtgcacaa gcgagcttca acgtgtttag  
 120  
 caactcgctcg ccaactgtgg atgcatactct catcaagtct gcatcaaaaa cctcattgt  
 180  
 ccactcctct ttgacaactg aggcaacccaa ctgaggcaaa tctagtcat tcataagacac  
 240  
 cccaggtgat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcagt  
 300  
 tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccca atgctccagc  
 360  
 tgttagctatc acgttggaat tagcagcagt tgacatcaac cgagaaagac caaaatctgc  
 420

aattttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat  
480

gatgttctcc tggaatgaa ggcggaacaa gccacgggcc aagtcttgtc ct  
532

<210> 100  
<211> 568  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 100  
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ggctggaggg aaactagtcc attttcatgg accaatggct tttacagctg atgatcttt  
120

gtgtgcaaca gctgagatca tggaaagag cacctatggc actgtttata aggctattt  
180

ggaggatgga agtcaagttg cagtaaagag attgaggaa aagatcacta aaggtcatag  
240

agaatttcaa tcagaagtca gtgttctagg aaaaatttgc cacccaaatg tttggctct  
300

gagggcctat tacttggac ccaaaggaa aaagcttctg gttttgatt acatgtctaa  
360

aggaagtctt gtttcttcc tacatggtaa gtttcgtgtg ctgttcttc attaagtgtt  
420

gtgtgtgctg ttcttaatt ataatttggc gttttacctt agtaatctgt ataattctaa  
480

tcggagaaca gtcaaacaaa aaccctaagg aacacacctt actttaatat accatatcaa  
540

taagngaaatn atttcttggt catcttga  
568

<210> 101  
<211> 678  
<212> DNA  
<213> soybean  
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<221> misc\_feature  
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atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gttcaacgt  
 120

gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
 180

atttgtccac tcctcttga caactgaggc aacccactga ggcaaatactgat gtcattcat  
 240

agacacccca ggtgatttcc tcgttaggat ttctaacaag ataacaccaa gactgttagat  
 300

atcagttta gtgttgctt tctttagctt tgagagctca ggtgcccgtt atccaatgc  
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tccagctgta gctatcacgt tggaatttgc agcagttgac atcaaccgag aaagacccaa  
 420

atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggccc  
 480

atgtatgatg ttctcctggg aatgaaggca gaacaaggcca cgggccaagt cttgnctat  
 540

tttcatcctt ggtggccat caatgaatgg ttcagttnc ccacctgcat caagatgaac  
 600

aagaaaataa ttcaatttatt gatatggnat attaaaagct aagggtggt ccctaggggg  
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tttggtttggc ccggncnn  
 678

<210> 102  
 <211> 673  
 <212> DNA  
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 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
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 60

atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gttcaacgt  
 120

gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
 180

atttgtccac tcctcttga caactgaggc aacccactga ggcaaatactgat gtcattcat  
 240

agacacccca ggtgatttcc tcgttaggat ttctaacaag ataacaccaa gactgttagat  
 300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc  
 360  
 tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagaccaaa  
 420  
 atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc  
 480  
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 540  
 ttcatccttg ttggccaatc aatgaatggt tcaagttccc cacctgcac aagatgaaca  
 600  
 agaaaataat tcacttaatg gatatggnat attaaagcta aggggtggtc cntaggggtt  
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 673

<210> 103  
 <211> 665  
 <212> DNA  
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 120  
 gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
 180  
 atttgtccac tcctctttga caactgagggc aacccactga ggcaaattcta gtccattcat  
 240  
 agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgttagat  
 300  
 atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc  
 360  
 tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagaccaaa  
 420  
 atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgagggtccc  
 480  
 atgtatgatg tctnctggga atgaaggcan aacaagccac ggccaagtct tggctattt  
 540

tcatccttgt ggncaatcaa tgaatggta anttcccccc ctgcttcaag atgaacaaga  
600

aaataattca cttattggtt gggntatnaa actaagggn gnccctaggg gntngntgn  
660

ccnct  
665

<210> 104

<211> 671

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

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atgaacttct ggtcggtctg atggagaagg atcaacacag tgcaaagcga gttcaacgt  
120

gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgtccac tcctctttga caactgaggc aacccactga ggcaaattctt gtccattcat  
240

agacacccca ggtgattcc tcgttaggat ttctaaacaag ataacaccaa gactgttagat  
300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccgtt atccaatgc  
360

tccagctgta gctatcacgt tgaaatttgc agcagttgac atcaaccgag aaagacccaa  
420

atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttccc  
480

atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttngctatt  
540

ttcatccttg gtggccatc aatgaatgtt tcagttccac cacctgcattc aagatgaaca  
600

agaaaataat tcacttattt atatggata ttaaagctaa ggggtggtcc nttagggggtt  
660

tngntgggncc c  
671

<210> 105

<211> 670

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 105
ggtgggactg gctgtgactg atctctctgg tctaattcttccatggactgttggaaacttg
60

atgaacttctt ggtcggtgtt atggagaagg atcaacacag tgcaaagcga gcttcaacgt
120

gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc
180

atttgtccac tcctctttga caactgaggc aacccactga ggcaaattcta gtccattcat
240

agacacccca ggtgatttcc tcgttaggat ttcttaacaag ataacaccaa gactgttagat
300

atcagtttta gtgttgctt tcttgagctt tgagagctca ggtgcccgtt atcccaatgc
360

tccagctgta gctatcacgt tggaatttgc agcagttgac atcaaccgag aaagacccaa
420

atctgcaatt ttagcatttgc tantctcatc aagcaacaca ttgctggatg tgagggtccc
480

atgtatgatg tcctcctggg aatgaaggca gaacaaggcca cgggccaagt cttggctat
540

tttcatcctt ggtggccaa tcaatgaatg gttcaanttc ancacctgcn tcaagangaa
600

caagaaaata attncntatg gnnnggatn naaactaagg ggnngnccta ggggtntnngn
660

nngnccggcn
670

<210> 106
<211> 662
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 106
ggtgggactg gctgtgactg atctctctgg tctaattcttccatggactgttggaaacttg
60

atgaacttctt ggtcggtgtt atggagaagg atcaacacag tgcaaagcga gcttcaacgt
120

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gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
 180  
 atttgtccac tcctcttga caactgaggc aacccactga ggcaaatcta gtccattcat  
 240  
 agacacccca ggtgattcc tcgttaggag ttctacaag ataacaccaa gactgttagat  
 300  
 atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccgtt atccaatgc  
 360  
 tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagaccaa  
 420  
 atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttcca  
 480  
 tgtatgatgt tctnctggga atgaaggcag aacaagccac gggccaagtc ttngctatt  
 540  
 tcatccttgt gggcaatcaa tgaatgtta anttccncac ctgcttnaga ggaccaagaa  
 600  
 aanattactt attggntggg tattaaagct aaggggggggn cctaaggggn tttggnnngc  
 660  
 cc  
 662

<210> 107  
 <211> 792  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 107  
 tatttacaac tagtgttatac ggagaatgaa aaattgaaga ataataagtt cagctataat  
 60  
 aaactcgagg gaggaaaaac aaagaaattc atgataaata gatataactt attaaattta  
 120  
 aggggtgtat ttgcacaccc tgaattatag agattcttat atcttgaga aaataattaa  
 180  
 attggaaaaa aagagataat gactgattga gattgcctc agaattgttc gtttaatat  
 240  
 tggtacgaat ctaatggntt tatcctgaaa gatgctcaca agtattgagg gactaataaa  
 300  
 ttgnntataa actactacta aatgagatga gactttaagg ngtactgaag caatatcatt  
 360

taaaaaaatga ctactcgcat ttgngtttag aaaaatttatt ttcataaag naaattttnt  
 420  
 ccnntttang ataaagccat ttnncttaac cnangggga nataaaatgg cccccnttca  
 480  
 taaaaaaacct accanctata taaatggatn tataccaacc ttcctangca ccatgccatt  
 540  
 gggatnggng gaattaaatt naaaangntt gcnttggaaat gggtaaaaaaa ttccaaaact  
 600  
 tnaaccccn ccacaatttt agtggccacn gnaatattnn ttanccngt gnctttttc  
 660  
 caggaaaacg acccgtaacc aaanggggnn aaaaggaaa gggagatgga ttgcntgnng  
 720  
 gtntgaggct catccnatt cccaaacatg ttnggnccc aaaaccgaag tncccctgga  
 780  
 ccatggatgn cn  
 792

<210> 108  
 <211> 573  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 108  
 gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatc  
 60  
 aacttctggc cgtgctgatc gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
 120  
 tagcaactcg tcgccaactg tggatgcatt tctcatcaag tctgcattcaa aaacctcatt  
 180  
 tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga  
 240  
 caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgttagatatc  
 300  
 .  
 agtttagtg tttgcttct tgagcttga gagctcaggt gcccggatc caatgctcca  
 360  
 gctgttagcta tcacgttgaa attagcagca gttgacatca acccgagaaa gaccaaaatt  
 420  
 gcaatttagc anttgnattc ttatnaacaa cacaatggtt ggatgngang gtnccaagga  
 480

ttgangttt ctgggaatga aaggganaaa caagccccgg gccaaagnntt ggggttattt  
540

tnaancctgg ngggncaaann aaangaaagg ttn  
573

<210> 109  
<211> 673  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 109  
gggactggct gtgactgatc tctctggct aatctttcc agctgctgga gaacttgatg  
60

aacttcttgt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaa aaacctcatt  
180

tgtccactcc tcttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga  
240

caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgttagatatc  
300

agtttttagtg tttgcttct tgagctttt agaagctcag gtgcccggta tcccaaatgc  
360

ttccagctgt agcttatcac cggtggaaat taagcagcaa gttggacatt caacccggag  
420

naaaaagaccc aaaaatttttcaaaatttttta agcaatttng gnanttcttn aatcaaggcc  
480

aaccaccaat tggnttggga atgggtggaaag ggtttccccca atggtaatttgaagggtttc  
540

ttccctnggg gaaaatggaa agggcaana aaacaaaggc ccaacngggg ccccaaagggt  
600

nttttggggg ctttattttt tncnaatncc ctttgggnngg ggncccaaatt tcnaaantgg  
660

aaattggntt tnn  
673

<210> 110  
<211> 564  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 110
actggctgtg actgatctct ctggtcta at ctctccagc tgctggagaa cttgatgaac
60

ttctggtcgt gctgatggag aaggatcaac acagtgc aaaa gcgagcttca acgtgtttag
120

caactcgctcg ccaactgtgg atgcatctct catcaagtct gcatcaaaaa cctcatttg
180

ccactccctct ttgacaactg aggcaaccca ctgaggcaaa tctagtc catagacac
240

cccaggtgat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcagt
300

tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccca atgctccagc
360

ttagctatc acgttggaaat tagcagcagt tgacatcaac ccgagaaaga ccaaaatctg
420

caatttttagc atttgttattc tcataaagca acacattgtt ggttgtgagg ttccatgtt
480

tgatgttctc ctggaaatga aggcaaaaca agccacggcc aagcttggct atttcatttc
540

tgtggccaat caatgaatgg tcatt
564

<210> 111
<211> 456
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 111
actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgttga agcgggtgg
60

gaggctggag ggaaaactagt ccattttgat ggaccaatgg ctttacagc tgatgtatc
120

ttgtgtcaa cagctgagat catggaaag agcacctatg gaactgttta taaggctatt
180

ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggtcat
240

agagaatttgc aatcanaagt cagtgttcta ggaaaaatta nacacccaa tgtttggtt
300

```

ntgaggccta ttacttggga cccaaagggg aaaagctnt ggttttgat tcataat  
360

aggaagtctt gcttnnncc tacatggnaa gtttcgggc tgtcttnat taanggtngg  
420

gnngngctgnn tttaattata atnngngtt tacctt  
456

<210> 112

<211> 592

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 112

actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgttga agcaggtggg  
60

gaggctggag ggaaaactagt ccattttgat ggaccaatgg cttttacagc tcatgtatctc  
120

ttgtgtcaa cagctgagat catggaaag agcacctatg gaactgttta taaggctatt  
180

ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggtcat  
240

agagaatttg aatcagaagt cagtgttcta ggaaaaatta gacaccccaa tgtttggct  
300

ctgagggcct attacttggg acccaaaggg gaaaagcttc tggttttga ttacatgtct  
360

aaaggaagtc ttgcttcttt cctacatggt aagttcgtg tgctgttctt tcattaagtg  
420

ttgggtgtgc tggctttaa ttataatttg gagtttacct tannaatctg gataattcta  
480

atcgagaac agncaaaca aancctaag gaacaaccct tancttaat atccatatca  
540

ataagngaan tatttcttgg tcataatgtat gcaggggggg gnactgaaca tt  
592

<210> 113

<211> 460

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 113

gggactggct gtgactgatc tctctggct aatctttcc agctgctgga gaacttgatg  
 60  
 aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
 120  
 tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcatcaa aaacctcatt  
 180  
 tgtccactcc tctttgacaa ctgaggaac ccactgaggc aaatcttagtc cattcataga  
 240  
 caccccaggt gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc  
 300  
 agtttttagtg tttgctttct tgagcttga gagctcaggt gcccggtatc ccaatgcttc  
 360  
 agctgttagct atcacgttgg aattagcagc agttgacatc aaccgagaaa gaccaaaatc  
 420  
 tgcaattta gcattgnat tctcattaaa caacacaatg  
 460

<210> 114  
 <211> 566  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 114  
 gggactggct gtgactgatc tctctggct aatctttcc agctgctgga gaacttgatg  
 60  
 aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
 120  
 tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcatcaa aaacctcatt  
 180  
 tgtccactcc tctttgacaa ctgaggaac ccactgaggc aaatcttagtc cattcataga  
 240  
 cnccccaggt gatttcntcg ttaggagttn taacaagata acaccaagac tgtagatatc  
 300  
 agtttttagtg tttgctttct tgagcttga gagttaaaggg ncccgantc ccanngntcn  
 360  
 agttgnagtt atancgttgg aattagcagn agttgcntca accaaaaaag accaaaatct  
 420  
 gaattttagc atttgtttt catcaagcaa cacattgntg gatgngaggt cccatgtatg  
 480

atgttctcct gggaatgaag gcaaacaaggccgggccaag gcttgggcta tttaatcct  
540

tggtggccaa acaatgaaag gttnat  
566

<210> 115  
<211> 16  
<212> DNA  
<213> soybean  
<400> 115  
gactgcgtac caattc  
16

<210> 116  
<211> 16  
<212> DNA  
<213> soybean  
<400> 116  
gatgagtcct gagtaa  
16

<210> 117  
<211> 22  
<212> DNA  
<213> soybean  
<400> 117  
gggtttcaga taaccgtggt cg  
22

<210> 118  
<211> 25  
<212> DNA  
<213> soybean  
<400> 118  
ttgcagatat tttagtttat tggcc  
25

<210> 119  
<211> 24  
<212> DNA  
<213> soybean  
<400> 119  
agttgattgg ctcaaaccat ggcc  
24

<210> 120  
<211> 20  
<212> DNA  
<213> soybean  
<400> 120

ttgcgtgtga tcggattac  
20

<210> 121  
<211> 20  
<212> DNA  
<213> soybean  
<400> 121  
tacctgagtt ctctcaagtc  
20

<210> 122  
<211> 252  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 122  
gattnagact ggcgtgactn tcaaaggaga ctggaatttc tccactgaaa ttattcagtg  
60

acaatcaag ctgcctaagc gagaaatgt ttgcaatgct tgaaggaata tgtccactaa  
120

attggtttct actcaaaatc agaacagaaa gattacgcaa tctacctaaa ctttgaggga  
180

tttattgtc aaggaggttg ttctctgcat tcagcagtgt aagtgaggat aaatttagaga  
240

gggttagcagg ca  
252